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ENHANCING READING COMPREHENSION USING GRAPHIC ORGANIZER: AN INTERVENTION PLAN AMONG GRADE 7 STUDENTS'

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ABSTRACT
The purpose of this descriptive quantitative study was to improve the reading comprehension of Grade 7 students through the use of graphic organizers. The study participants were 54 seventh-grade students from Baltazar Nicor Valenzuela National High School. The study introduced an intervention called the Graphic Organizer Intervention to enhance student performance in the four levels of reading comprehension: literal, interpretive, evaluative, and creative. The pre-test and post-test results showed a significant difference: the pre-test had a mean score of 12.8 (SD = 3.17), while the post-test showed a mean score of 24.7 (SD = 2.26). The statistical analysis revealed a significant improvement in students' reading comprehension following the intervention, t (53) = 22.1, P<0.001. These findings suggest that the use of graphic organizers effectively enhanced students' comprehension skills. To provide a comprehensive understanding of the students' insights during and after the intervention, the researchers conducted interviews with selected individuals. From the responses gathered, six themes emerged regarding the insights of students: (1) Increased Comprehension and Focus, (2) Motivation and Positive Reading Habits, (3) Academic Improvement and Performance Outcomes, (4) Autonomy and Lifelong Application of Reading Strategies, and (5) Visual Learning as a Bridge to Comprehension.

KEYWORDS: *Reading Comprehension, Graphic Organizer, Grade 7 Students, Action Research, Visual Learning, Intervention Strategy*

INTRODUCTION

Reading comprehension goes beyond merely decoding words; it involves evaluating information, drawing conclusions, and making connections within and beyond the text, which is essential for academic success and informed citizenship (K12 Reader, 2018). It supports vocabulary growth, critical thinking, and a lifelong love of reading, enabling students to solve problems and engage with diverse content. Padak and Newton (2020) enhanced traditional Informal Reading Inventories by including oral reading fluency, prosody, and comprehension assessments that measure literal, inferential, and evaluative understanding, emphasizing that expressive and paced reading improves meaning-making. Similarly, Leslie and Caldwell (2021) developed the Qualitative Reading Inventory (QRI-7), which features graded passages, word lists, and comprehension questions that assess various levels of understanding while factoring in students' prior knowledge, showing that comprehension is shaped by both reading skills and background knowledge.

Globally, reading comprehension faces significant challenges despite differing national contexts. In Thailand, the PISA report (OECD, 2019) revealed that nearly 43% of students perform below proficiency level, indicating a gap between basic literacy and deeper comprehension skills. Similarly, in Singapore, while students perform well academically, adults often lose reading habits post-school due to fast-paced work culture, digital distractions, and unequal access to resources, weakening long-term comprehension (Loew, 2024). In Canada, although education levels are high, nearly half of adults lack the literacy skills needed for daily tasks and workforce demands, with 19% scoring at or below Level 1 on the OECD's PIAAC assessment (Hayes, 2024). Even Finland, known for strong academic performance, reports that many ninth-grade students struggle with complex texts due to factors like socio-economic status, limited reading habits, and weak inferential skills Marjokorpi & Van Rijt (2023). These findings collectively emphasize the global need to enhance reading comprehension through sustained practice, resource access, and integrated literacy instruction.

The Philippines faces widespread reading comprehension challenges, as highlighted by the 2018 PISA results where the country scored 340 and ranked lowest among 79 nations, indicating major gaps in literacy skills (OECD, 2019). In Caraga, 95.23% of students scored below Proficiency Level 2, struggling with basic comprehension skills due to disengaging and rote-based instruction, showing that the issue goes beyond poverty and points to the need for more effective teaching methods. In Leyte, poverty, lack of materials, and language barriers greatly affect reading comprehension, as students often speak Waray-Waray or Cebuano at home but are taught in Filipino and English, leading to confusion and poor understanding (Amazona, 2022). In the Zamboanga Peninsula, persistent reading difficulties remain evident through consistently low scores in Phil-IRI and ELLNA assessments, with many students classified as frustration-level readers—able to read words but unable to understand them—highlighting

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ongoing struggles despite government efforts Phil-IRI and ELLNA report (2023).

In the Division of Davao del Norte, particularly in Baltazar Nicor Valenzuela National High School, it has been spotted that there have been Grade 7 students struggling with their reading comprehension. The lessons that touch different literature have led them to confusion and misunderstanding which results in attaining low scores during exams and quizzes. Moreover, short attention span is also evident in the students, which leads them to lose focus on what they have read. This action research contributes to the broader social needs on addressing problems and issues regarding the reading comprehension of the students. Additionally, this action research is timely and essential in addressing the existing prevalence of lack of reading comprehension as well as their attitudes in reading, vocabulary, and question answering. This study is socially relevant because it addresses students' changing language needs, especially in reading comprehension. It aims to offer useful insights into solving this issue through various strategies. The research also helps determine whether the proposed intervention is effective. It deepens our understanding of students' reading comprehension levels. Additionally, it explores how to improve their vocabulary, reading attitudes, and ability to answer questions.

Further, with the thorough search for relevant literature addressing reading comprehension, the researcher has found the study of Pellegrini et al. (2021) entitled "The Effectiveness of a Reading Comprehension Program for elementary school students: a quasi-experimental study". Their focus is to provide an intervention named Reading Comprehension-Reciprocal Teaching (RC-RT) which was designed to evaluate the impact of the RC-RT intervention on reading comprehension and summarizing skills of fourth graders. Furthermore, the study of Balero and Mabborang (2023) entitled "Exploring Factors Affecting Reading Comprehension Skills: A Quasi Experimental Study on Academic Track Strands, Learning Modalities, and Gender" their focus is to examines the impact of academic track strands, learning modalities, and gender differences on reading comprehension skills. Lastly, another study, of Ceyhan et. Al 2021 entitled, The Effect of Interactive Reading Aloud on Student Reading Comprehension, Reading Motivation and Reading Fluency. A mixed experimental design was used to model the study, which highlighted the effect of interactive reading aloud (IRA) lessons on students' reading comprehension levels, reading motivation, and reading fluency skills.

While previous studies have explored factors influencing reading comprehension and the effectiveness of various programs, few have specifically examined the use of graphic organizers as an intervention for Grade 7 students. Most existing research targets younger learners or broader variables like gender and learning styles. Moreover, no known studies have used a descriptive quantitative one-group pretest-posttest design to address reading comprehension, vocabulary, and question-answering skills among junior high school non-readers. This gap highlights the need for the present study.

RESEARCH QUESTIONS/OBJECTIVES

The objective of this research was to determine the effectiveness of Graphic Organizer Intervention in improving the reading comprehension of the Grade 7 students. The research questions/objectives that guided this study were as follows:

1. What is the level of reading comprehension among Grade 7 students before the Graphic Organizer Intervention has been implemented?
2. What is the level of reading comprehension among Grade 7 students after the Graphic Organizer Intervention has been implemented?
3. Is there a significant difference in reading comprehension skills between the pretest and post-test following the implementation of the Graphic organizer Intervention?
4. What are the insights of the students on the impact of the Graphic Organizer Intervention in enhancing the reading comprehension skills among Grade 7 students?

HYPOTHESIS

The null hypothesis, which was tested at a 0.05 alpha level of significance, stated that there is no significant difference between the pre-test and post-test scores of Grade 7 students' reading comprehension before and after the implementation of the Graphic Organizer Intervention.

PROPOSED INNOVATION, INTERVENTION AND STRATEGY

The Graphic Organizer Intervention is designed to improve the reading comprehension skills of Grade 7 students at Baltazar Nicor Valenzuela National High School. It uses structured, visual learning tools to help students organize and understand information from texts, making reading more accessible. This approach supports vocabulary development, reading fluency, and overall engagement, while also fostering a more positive attitude toward reading.

The 3-week intervention was conducted during students' regular English periods and extended sessions every Friday, known as "Catch-up Friday." Sessions combined explicit instruction with guided activities using various types of graphic organizers, such as story maps, Venn diagrams, cause-and-effect charts, and sequence organizers. These tools helped students identify main ideas, supporting details, and relationships within texts.

A pre-test was administered to assess students' initial reading comprehension levels, followed by targeted instruction throughout the intervention. After the program, a post-test was conducted to measure progress. Additionally, interviews were held with 7 student participants to evaluate the intervention's effectiveness and gather feedback for future improvements.

This intervention aimed to promote lasting improvements in reading comprehension by providing struggling readers with clear, visual frameworks that support understanding, retention, and application of information across subjects.

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WEEK	Graphic Organizer Used	Focus	Description
Week 1	Butterfly Life Cycle Wheel	Connect part of the story, interpret and understand the story.	The Butterfly Life Cycle Wheel is a colorful circular diagram linking each life stage to a story element. The egg is the setting, the caterpillar represents characters, the pupa shows the plot, and the butterfly symbolizes the resolution. Arrows connect each stage, forming a clear, continuous cycle.
Week 2	Emojigraphic	Describe happening in story, explain your reaction, connect with character and events.	The Emoji Reaction Chart is a fun tool to understand stories better. For each chapter or scene, you describe what happened, pick an emoji to show your feelings, explain your reaction, and why you felt that way. It helps you connect with the story and think more deeply.
Week 3	Flower Diagram	Supply, arrange, and reflect.	In this activity, students place the story's main idea or title in the center of a flower diagram, with ten numbered petals for answering key questions or details. The vase represents the theme or moral, and the leaves are for personal reflections or favorite parts. A fully filled flower shows a deeper understanding and creates a complete, beautiful literary flower.

Before commencing the action research, a thorough orientation was conducted for participants, introducing the intervention along with a detailed explanation of the study's intentions and methodologies. Afterward, participants have been informed, ensuring that their identity will remain anonymous and with utmost discretion. Moreover, to safeguard the well-being of participants, the researchers engage in a comprehensive discussion highlighting the benefits of various reading exercises. This discussion served as a guide, outlining the diverse activities participants have undertaken during the intervention. The researchers are committed to ensuring that the instruments and strategies employed significantly contribute to the participants' development and enhancement of reading comprehension in every session conducted.

The primary objective of this study was to cultivate and improve the reading comprehension skills of the grade 7 students at Baltazar Nicor Valenzuela National High School. In the pursuit of this goal, the researchers will adhere to a set of guiding questions to structure and inform the study's direction.

METHODOLOGY

This study utilized a quantitative approach with a one-group pretest-posttest design to assess the impact of the graphic organizer intervention. According to Thyer (2012), this design observes changes in a single group before and after an intervention. As an efficacy study, it focused on whether the intervention led to improved outcomes, which in this case, enhance the reading comprehension among Grade 7 students.

The researchers administered pre- and post-tests to measure changes in students' reading comprehension. The intervention included direct instruction and guided learning, designed to enhance engagement and retention. A survey was also conducted before and after the intervention to support the findings. In addition to the quantitative data, the researchers also employed a qualitative approach through in-depth interviews to gather the insights of participants. The qualitative findings provided valuable context to the test results, offering a deeper understanding of the effects of using graphic organizer as an intervention influenced students' reading comprehension skills.

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Research Respondents

This study was conducted at Baltazar Nicor Valenzuela National High School, a secondary public school situated in Capungagan, Kapalong Davao del Norte. The Grade 7 English department head selected the participants by determining whether students met the study's eligibility requirements. As stated by Cohen (2007), a quantitative study with a diversed sample should have a minimum of 14 participants. With the assistance of the head of the English department and the teachers at the school. Grade 7 students will participate in this study as responders. The majority of the participants attend Baltazar Nicor Valenzuela National High School. Additionally, this study used purposive sampling, a non-probability sampling technique that entails the purposeful selection of particular participants based on their applicability to the study. This approach is especially helpful when the researcher is well-versed in the population, allowing them to choose a sample that best reflects the population (Curtis, 2011).

To select the respondents, the researchers employed purposive sampling, a type of non-probability sampling technique. This method involved the intentional selection of participants who met specific qualifications relevant to the study's objectives. The researchers, along with school personnel, identified students who showed signs of difficulty in reading comprehension and vocabulary understanding key focus areas of the study. This sampling strategy ensured that the study addressed its objectives by focusing on students who truly needed reading comprehension interventions.

Data Collection Procedure

To collect reliable data from a range of sources, Mathison (1988) emphasizes the significance of employing data collection processes in a study. The pre- and post-test methods were used by researchers to collect data for this investigation. This study tested the participants' reading comprehension levels after implementing a Graphic Organizer intervention using a one-group pre-test-posttest design. The program leader of the grade 7 English department, who select the study's suitable participants, worked with the researchers to find the participants. Following identification, the respondents were politely asked whether they would like to participate in the survey. Although it is morally wrong, the researchers did not in any way mislead the volunteers. If they disagree, the researchers apologize for taking up their time and gratitude them for providing an honest response. In order to demonstrate their sincerity in selecting and carrying out the study, the researchers also showed their faces to the participants. A pretest was then carried out by the researchers. An assessment sheet was distributed to study participants during the pre-test phase to determine their past proficiency in reading comprehension of the English language within the study's setting. To ascertain the reading comprehension ability of the non-readers who participated in the study, a pre-test was administered before the intervention. Following that, the intervention carried out for a total of three weeks, with one hour each Monday through Thursday 12 hours in total, and following the conclusion of the sessions, a post-test administered.

Prior to the study's execution, researchers worked with the head of the seventh-grade English teaching department at Baltazar Nicor Valenzuela National High School. In order to perform the study and notify the Grade 7 class advisers and the school principal about the intervention's timetable and length, the researchers also requested their consent. Furthermore, the pre-test readings will be modified and adapted versions of the test that have been verified and checked by the Grade 7 English Coordinator. To make sure they are not distracted while replying, students are put in a quiet room for the pretest. Following the administration of the pre-test, the researchers gathered the answers and examined the results to determine the average scores for each indicator given. Through a variety of reading-related activities and resources, including books for oral reading, storytelling, question-answering, and other reading evaluations, the intervention was then used to improve the kids' reading comprehension. For three weeks, the aforementioned intervention was put into practice. In order to ascertain whether the participants' reading comprehension would improve following the intervention, a post-test was administered using the same test kit as the pre-test. Additionally, the goal of data collection is to determine if the mean increased or decreased before and after the intervention was put into place.

Research Instruments

In conducting the study, it is essential to use instruments that are appropriate and aligned with the objectives of the research. For this study, the researchers utilized an adapted questionnaire from a previous study.

This study used the test questionnaire from the study of Muegna (2024) of Kapalong College of Agriculture, Sciences and Technology. It is a test consisting of forty questions designed to measure students' ability to comprehend the texts they read. The examination was reviewed and validated by the research adviser to ensure its appropriateness for the students and the study.

The test consisted of questions embedded within reading passages. The students were required to read these texts and answer the corresponding questions based on what they had read. This required analytical thinking and a clear understanding of the material in order to provide correct answers.

Once the data was collected, the mean, standard deviation, and paired t-test were used to determine whether there was a significant difference in the participants' performance before and after the implementation of the strategy.

To accurately measure the level of students' reading skills, the following scale was used: Based on study of Rosas (2024).

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Table 1
Range of Mean Percentage

Means	Description	Interpretation
90 – 100	Very High	The students consistently demonstrate accurate understanding of the text they read, with very few or no errors. They show a deep comprehension of the content and principles of the material.
70 – 89	High	The students are generally accurate in their understanding of the text they read. Errors are infrequent and only slightly affect overall comprehension.
55 – 69	Moderate	The students are often accurate and have adequate ability to understand the text they read. There are some noticeable errors, but these do not significantly hinder communication.
40 – 54	Low	The students often make errors in understanding the text, which affects the accuracy of their comprehension. These mistakes may indicate a lack of reading comprehension skills.
0 – 39	Very Low	The students consistently make errors in understanding the words they read, resulting in difficulty comprehending the text. There is a clear and serious deficiency in reading comprehension skills that requires immediate intervention.

Data Analysis

The analysis of data is a crucial part of research, as it involves systematic examination and interpretation of collected data to generate meaningful insights and arrive at valid conclusions. This process reveals essential information that contributes to a comprehensive understanding of the research. The data were gathered through the pre-test and post-test administered by the researcher to Grade 10 students of Baltazar Nicor National High School and were thoroughly analyzed.

The method used for data analysis in this study was the paired t-test, which measures the significance of the difference between the means of two groups, emphasizing their differences or distributions. The paired t-test was used to examine the hypothesis and determine whether a process had an effect on the same samples or if the groups differed from each other (Gosset & Silverman, 1908).

The range of percentage mean was also used as a guide and basis for analyzing the data and characteristics under investigation. This allowed the researcher to interpret any information derived from the students' reading comprehension assessment. The scores collected were summarized, translated, analyzed, and organized using the paired t-test to identify significant differences between the pre-test and post-test mean scores.

Additionally, standard deviation was utilized in this research to determine how far each score deviated from the mean. This helped assess the variability in students' results. Through the analysis of the standard deviation, the effectiveness of the intervention in enhancing students' reading comprehension skills could be evaluated (Juarez, 2019).

The primary step was identifying the unit of analysis using a rubric, with a focus on evaluating students' comprehension of the texts they read, based on the questionnaire. According to the objective of the study, the researcher aimed to determine the students' level of reading comprehension before and after the intervention. The interventions served as the foundation for enhancing students' understanding of the texts they read.

The questionnaire by Muegna (2024) served as a guide for assessing students' reading comprehension skills. This tool was selected because it aligned with the study's goal of evaluating and determining the students' level of reading comprehension.

Before the intervention, students' reading comprehension skills were assessed using the questionnaire. The second assessment, conducted after the intervention, also used the same rubric to measure the impact of the strategies implemented. This evaluation provided a clear comparison of results before and after the intervention in terms of reading comprehension.

Statistical Treatment of Data

The statistical tools used in this study included the mean, standard deviation, paired t-test, and Cohen's d, all of which were essential in analyzing and interpreting the collected data.

The mean served as the primary measure of central tendency, providing the average performance of Grade 7 students during both the pre-test and post-test stages. This allowed the researcher to assess the general level of reading comprehension before and after the implementation of the Graphic Organizer Intervention.

Alongside the mean, the standard deviation, was calculated to measure the variability or dispersion of the students' scores in

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both phases. A smaller standard deviation in the post-test would suggest more consistent performance among students after the intervention.

To determine whether the changes in performance were statistically significant, a paired t-test was applied. This test compared the means of the pre-test and post-test scores from the same group of students, effectively assessing the impact of the intervention. A significant result (typically $p < 0.05$) would indicate that the improvement in scores was unlikely due to chance, thus supporting the effectiveness of the graphic organizers in enhancing reading comprehension.

Furthermore, the Cohen's d statistic was computed to measure the effect size of the intervention. As a standardized measure, Cohen's d helps to interpret the practical significance of the results. In the context of this study, a Cohen's d value of 0.2 would indicate a small effect, 0.5 a medium effect, and 0.8 or higher a large effect. A large effect size would suggest that the Graphic Organizer Intervention had a strong and meaningful impact on student learning outcomes.

RESULTS AND DISCUSSION

Pre-Test and Post-Test Result

This chapter presents the results or data gathered from the study. It shows the scores of the students in the experimental group during the pre-test before the implementation of the Graphic Organizer intervention, the scores in the post-test after the intervention, and the significant difference between the pre-test and post-test results. The overall pre-test results of the students are described as "average." This indicates that they are capable of understanding the main idea and some important details in what they read. However, they may still encounter difficulties in deeper analysis or interpretation of the text. This level of proficiency suggests that while the students have basic knowledge, they still need to further develop their analytical and critical thinking skills to more effectively understand and evaluate more complex reading materials.

Research Objective No.1 What is the Level of Reading Comprehension Among Grade 7 Students before using Graphic Organizer Intervention has been Implemented?

Table 2
Pre-Test Result

Pre-Test		
Score	**Frequency**	**Percentage**
8	2	3.70%
9	6	11.10%
10	6	11.10%
11	6	11.10%
12	7	13.00%
13	8	14.80%
14	7	13.00%
15	3	5.60%
16	4	7.40%
17	1	1.90%
18	2	3.70%
21	1	1.90%
24	1	1.90%
Total	**54**	**100%**
Overall Mean Description		**12.8 Very Low**
Standard Deviation		**3.17**

Based on the results in Table 2, a clear difference can be seen in the distribution of students' scores in the pre-test. In this assessment, most students obtained very low scores, indicating limited prior knowledge of the subject. For instance, the highest number of students scored 13 (14.80%), followed by scores of 14 and 12 (13.00%), then 9, 10, and 11 (11.10%), 16 (7.40%), 15 (5.60%), 8 and 18 (3.70%), and finally 17, 21, and 24 (1.90%). The pre-test had a mean of 11.9 with a standard deviation (SD) of 3.01, the distribution of these scores reflects a generally poor performance, suggesting that many students were struggling with the concepts prior to the intervention. This variability implies that while the overall performance was low, students' levels of understanding varied significantly, with some scoring notably lower or slightly higher than the average. Overall, these results highlight the need for targeted instructional strategies to address the evident gaps in students' knowledge.

According to the study by Lusianti (2020), most students also only achieved average scores in the pre-test, indicating a lack of reading comprehension skills. This suggests the need for further practice. In the study by Gubalani et al. (2023), students also had a low mean score in the pre-test, showing that they still needed to develop their knowledge and skills to better understand texts, especially with the help of someone more knowledgeable. A similar observation was made in the study by

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Fernandez (2022), where students also scored low in the pre-test. He emphasized the importance of teacher support in improving students' reading comprehension skills.

Table 3
Summary on the Level of Reading Comprehension among Grade 7 Students before using Graphic Organizer as an Intervention

Indicator	Pre-Test	
	Average Percentage Score	Description
Literal	40.19%	Very Low
Interpretive	28.15%	Very Low
Evaluation	24.63%	Very Low
Creative	34.63%	Very Low
Overall	**31.90%**	**Very Low**

Table 3 presents the mean scores before and after the intervention, showing a noticeable increase in the students' level of understanding in reading comprehension. In the pre-test, all indicators fell within the very low range, indicating that the development of reading comprehension skills was rarely demonstrated.

It is observed that Literal scored within the 40–54% range, categorized as low. Although the results were fair, intervention was still necessary to further improve their comprehension. Meanwhile, Interpretive, Evaluation, and Creative received low percentages 0–39%, which fall under the very low description category. This signals the need to focus on enhancing students' reading comprehension and implementing the intervention effectively.

Hamora et al. (2022) confirmed that while students had low pre-test scores, the intervention significantly helped improve their reading comprehension. According to Casingal (2022), continuous teacher support is vital in applying reading interventions using the step-by-step intervention approach. Additionally, Dexter and Hughes (2021) demonstrated through meta-analysis that graphic organizers notably enhance overall reading comprehension, with moderate to large effect sizes across different subjects and student populations.

Research Objective No.2: What is the Level of Reading Comprehension Among Grade 7 Students before using Graphic Organizer Intervention has been Implemented?

On the other hand, Table 4 presents the results of the post-test, which was conducted after the intervention had been implemented. The same examination was used, with only slight modifications.

The results show that after the intervention, the overall mean score reached 61.71%, with a descriptive equivalent of "average." This indicates that the students had become capable in understanding what they read. Most students answered correctly and demonstrated effective reading comprehension. Mistakes were seldom and had a minimal effect on overall understanding. Despite this improvement, it cannot be denied that there are still certain aspects where students encounter difficulties, which continue to lead to occasional errors.

Table 4
Frequency of the Post-test Scores

Post Test		
Score	Frequency	Percentage
21	5	9.30%
23	11	20.40%
24	10	18.50%
25	14	25.90%
26	8	14.80%
27	1	1.90%
29	2	3.70%
30	2	3.70%
32	1	1.90%
Total	**54**	**100%**
Overall Mean Description		**24.7 Average**
Standard Deviation		**2.26**

In addition, Table 4 shows that the highest score obtained in the post-test was 32, achieved by only one student, representing 1.90% of the total. This indicates that just one student reached the highest possible score, which is considered a passing mark.

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On the other hand, the lowest score was 21, recorded by 5 students, accounting for 9.30%, and remains a failing score despite being higher than the lowest pre-test scores. Notably, the most frequently obtained scores were 29 and 30, each achieved by 2 students. These scores are considered passing, as the established passing mark is 25. Out of the total 54 students, 28 managed to pass the post-test, indicating a notable improvement in performance after the intervention. The post-test had a higher mean of 16.10 and a lower SD of 2.02. This shows a significant improvement in performance after the intervention. The decrease in standard deviation also suggests that the scores became more consistent in the post-test. Furthermore, the median scores increased from 12.8 in the pre-test to 24.7 in the post-test, reinforcing the observed overall improvement in student performance.

As found in the study by Ahmad (2021), students' scores increased in the post-test after the intervention, indicating the effectiveness of the strategy used. It was also suggested that teachers employ more innovative and interactive approaches to improve reading and comprehension skills. This aligns with the findings of Lusianti (2020), where students scored higher in the post-test, serving as proof of the intervention's effectiveness. It was further suggested that creative teaching strategies are essential in enhancing students' understanding. Meanwhile, the study by McBreen and Savage (2023) showed that interventions combining motivation and skill development are more effective than those focusing on only one aspect. Their findings reveal that using meaningful activities along with motivational support positively impacts the development of reading skills.

Table 5
Summary on the Level of Reading Comprehension among Grade 7 Students after using Graphic Organizer as an Intervention

Indicator	Post Test	
	Average Percentage Score	Description
Literal	67.04%	Average
Interpretive	59.07%	Low
Evaluation	60.37%	Low
Creative	60.37%	Low
Overall	**61.71%**	**Average**

After the implementation of the intervention, Table 5 shows an increase in learning, as each indicator received a description ranging from Low to Average. All indicators scored within the range 55–69, which means average, indicating that students generally understood the material correctly, and while there were some errors, they did not significantly affect comprehension. This suggests that the implemented intervention was successful. Overall, the students' average mean percentage score rose from 24.63% (very low) to 67.04% (average).

This is supported by the study of Robison (2022), which showed that students in the experimental group performed better after the intervention, with a noticeable increase from the pre-test to the post-test, demonstrating the positive impact of the intervention on reading comprehension skills. Similarly, in the study by Dela Cruz (2024), the use of WordWall as an intervention proved effective, as students improved from a "Moderate" to a "Very High" level in the post-test. This is also reinforced by the research of Centeno (2024), where the Project READY PLUS+ led to a significant increase in students' scores, proving the effectiveness of innovative and interactive strategies in enhancing reading comprehension.

Significant Difference in reading comprehension skills Among Grade 7 Students before and after the Graphic Organizer Intervention has been Implemented

Table 6 shows the results of the significant difference between the pre-test and post-test scores, indicating the performance levels of 54 students in the experimental group, $t(53) = 22.1$, $p < .001$. Since the probability value ($p < .001$) is less than the level of significance ($\alpha = 0.05$), the null hypothesis is rejected. This means that there is a significant difference between the pre-test and post-test scores. Additionally, the effect size (Cohen's d) of 3.01 suggests a very large impact of the intervention on student learning. These findings demonstrate that the graphic organizer intervention was highly effective in enhancing students' reading comprehension.

Table 6
Significant Difference between Pre-test and Post-test Scores

		Student's t	df	p	Mean difference	SE difference		Effect Size	Description
Pre-Test	**Post-Test**	22.1	53	<.001	11.9	0.540	Cohen's d	3.01	Significant

The significant difference between pre-test and post-test scores, as indicated by the t-test results ($t(53) = 22.1$, $p < .001$), and the large effect size (Cohen's $d = 3.01$) demonstrate the effectiveness of the graphic organizer intervention. According

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to Kim et al. (2022), interventions with large effect sizes can lead to substantial improvements in student learning outcomes. Similarly, research by Wexler et al. (2023) highlights the importance of targeted interventions in enhancing reading comprehension skills. Allen et al. (2022) found that graphic organizers can be particularly effective in improving student understanding and retention of complex material. Furthermore, studies by Duke et al. (2023) and Guthrie et al. (2022) emphasize the significance of evidence-based interventions in promoting student achievement and reducing variability in scores. These findings support the notion that the graphic organizer intervention was highly effective in enhancing students' reading comprehension.

Research Question No.4: What are the insights of students on the impact of the Graphic Organizer Intervention in enhancing reading comprehension skills among Grade 7 students.

To answer this research question, a thorough interview was carried out with the selected informants and participants. The purpose of this question was to gather their insights and reflections on their experiences with the graphic organizer intervention. Table 5 presents the main themes and representative statements related to Research Question 1, providing a summary of the participants' shared insights. From the participants' answers, four major themes emerged: (1) Increased Comprehension and Focus, (2) Motivation and Positive Reading Habits, (3) Academic Improvement and Performance Outcomes, (4) Autonomy and Lifelong Application of Reading Strategies, and (5) Visual Learning as a Bridge to Comprehension.

Table 8
Theme and Sample Statements: Students' Perspectives on the Implementation of Graphic Organizer in Developing Reading Comprehension Skills.

Emerging Themes	Sample Statements
Increased Comprehension and Focus	• "I didn't get distracted easily because the organizer helped me stay on track." (IDI_01) • "It helped me focus on important details, not just random sentences." (IDI_02) • "I understood the text better when I wrote the ideas in boxes." (IDI_03) • "I don't get lost in long paragraphs anymore." (IDI_04) • "The organizer helped me see the beginning, middle, and end clearly." (IDI_05)
Motivation and Positive Reading Habits	• "Reading is more enjoyable now because I understand the story." (IDI_03) • "Before, I felt sleepy during reading. Now I look forward to it." (IDI_04) • "Graphic organizers made reading less boring and more exciting." (IDI_05) • "I felt motivated to read more because I could follow the story." (IDI_06) • "I now borrow books from the library to practice more." (IDI_07)
Academic Improvement and Performance Outcomes	• "My quiz scores got better after the intervention." (IDI_01) • "I finally got a perfect score in our reading test." (IDI_03) • "Now, I understand what I'm reading, so my answers are more correct." (IDI_05) • "I can now explain the story better during recitation." (IDI_06) • "I got praised by my teacher for answering well in comprehension activities." (IDI_07)
Autonomy and Lifelong Application of Reading Strategies	• "Even without the organizer, I try to organize my thoughts when reading." (IDI_03) • "I make my own simple chart when reading at home." (IDI_04) • "I use the strategy even in other subjects like Filipino." (IDI_05)

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	• "I feel more responsible for my own learning now." (IDI_06) • "The organizer helped me build good reading habits." (IDI_07)
Visual Learning as a Bridge to Comprehension	• "The visuals helped me a lot because I understand better with pictures." (IDI_02) • "I learn more when I can see and draw the concepts." (IDI_03) • "Using diagrams made the lesson more interesting." (IDI_04) • "I hope other teachers also use visuals in their lessons." (IDI_05) • "Graphic organizers helped me because I'm not good at just listening." (IDI_06)

The first theme, Increased Comprehension and Focus, captures how graphic organizers helped students better understand the reading material and remain more focused during reading tasks. Students expressed that they no longer felt overwhelmed by long texts because the organizers allowed them to visually break down and structure information. By presenting the beginning, middle, and end of a story in a simplified format, students were able to extract essential ideas without getting distracted. This structured approach helped them follow the text more effectively and grasp deeper meanings. The visual mapping of information promoted clearer thinking and reduced cognitive load, especially for students who previously struggled with dense paragraphs. These experiences underscore the effectiveness of visual tools in guiding learners' attention to key content and improving comprehension outcomes (Zarei & Nafarzadeh, 2021).

This theory aligns with the themes of increased comprehension and focus, as seen in the quotes about graphic organizers helping students stay on track, focus on important details, and understand complex texts and the Importance of engagement and motivation in reading, arguing that students' motivation increases when reading is meaningful and manageable. By providing autonomy support, relevance, and strategy instruction, educators can foster a positive reading environment that promotes engagement and motivation. Graphic organizers, in particular, can be an effective tool in this regard, helping students to better comprehend and organize information, and ultimately building positive reading habits. By incorporating such strategies, educators can create a reading environment that supports students' comprehension, focus, engagement, and motivation, leading to improved reading outcomes (Guthrie and Klauda's theory 2019).

The second theme, Motivation and Positive Reading Habits, highlights how the use of graphic organizers sparked greater interest and enjoyment in reading among students. Many participants mentioned that reading no longer felt like a tedious task; instead, it became engaging and exciting. The clarity provided by graphic organizers boosted their confidence in understanding texts, which in turn led to increased motivation. Students began looking forward to reading sessions, expressing that they even borrowed books outside of class to apply the strategy. The positive shift in their reading attitude contributed to the development of healthy reading habits, indicating a long-term impact (Castek & Beach, 2021).

In addition, having motivation and positive reading habits, highlighting the importance of strategies like graphic organizers in enhancing reading comprehension and motivation. Using graphic organizers can help students organize and structure information, leading to increased understanding and engagement. This aligns with the quotes from students who reported that graphic organizers made reading more enjoyable, less boring, and more exciting, motivating them to read more and even borrow books from the library. By incorporating graphic organizers and other supportive strategies, educators can create a positive reading environment that fosters motivation, engagement, and improved reading outcomes, ultimately developing positive reading habits in students(Fountas & Pinnell 2019).

The third theme, Academic Improvement and Performance Outcomes, refers to the noticeable enhancement in students' quiz and test scores after the use of graphic organizers. Students attributed their improved academic performance to a deeper understanding of the texts, which allowed them to answer comprehension questions more accurately and participate confidently in recitations. The intervention gave them tools to process information better, resulting in more correct answers and improved classroom performance. Some students even mentioned receiving praise from teachers—an external affirmation of their progress (Khairuddin & Hashim, 2020).

To support to themes, strategic intervention programs, such as those incorporating graphic organizers and other reading strategies, can significantly enhance students' reading comprehension and academic performance. The study revealed that students who participated in these programs showed improved reading skills, increased confidence, and better academic achievement, aligning with the quotes from students who reported improved quiz scores, perfect scores, and enhanced ability to explain stories and answer comprehension questions correctly. By incorporating targeted interventions and strategies, educators can create a supportive learning environment that fosters academic improvement and promotes positive performance outcomes (Kigen, & Mwangi, 2022).

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The fourth theme, Autonomy and Lifelong Application of Reading Strategies, reflects students' growing independence in learning and the transfer of graphic organizer strategies to other subjects. Several participants mentioned that even when graphic organizers were not provided, they took the initiative to mentally or manually organize what they read. Others applied the strategy in subjects like Filipino, demonstrating cross-disciplinary skill transfer. This indicates that students not only learned a tool—they developed a mindset for strategic reading. The habit of organizing thoughts during reading is a critical metacognitive skill that supports lifelong learning (Ozturk & Cecen, 2022).

Another research study to support the statements which emphasizes the importance of teaching students' metacognitive strategies, such as summarization and organization, to enhance reading comprehension and promote self-directed learning. When students involved many strategies, they become more autonomous and confident readers, able to apply them across various subjects and contexts. This aligns with the quotes from students who reported taking initiative to organize their thoughts, creating their own charts, and applying the strategy to other subjects, demonstrating a growing sense of autonomy and responsibility for their own learning. By fostering these metacognitive skills, educators can empower students to become lifelong learners, equipped with the strategies and mindset necessary for success (Wijekumar et al.,2020).

The fifth theme, Visual Learning as a Bridge to Comprehension, highlights how the visual nature of graphic organizers catered to students who learn best through images and spatial reasoning. Participants explained that visuals helped them connect ideas, see relationships, and stay engaged in lessons. The ability to draw, label, and see information mapped out made learning more interactive and accessible, especially for students who struggle with traditional text-heavy instruction. Some also expressed a desire for other teachers to adopt similar visual strategies, suggesting strong approval for the approach (Hwang, Sung, & Yang, 2020).

In addition, incorporating visual aids like graphic organizers, diagrams, and pictures into lessons can significantly enhance students' understanding and engagement. The study found that visual learning strategies cater to diverse learning styles, allowing students to process and retain information more effectively. This aligns with the quotes from students who reported that visuals helped them understand better, made lessons more interesting, and facilitated learning through drawing and seeing concepts. By leveraging visual learning tools, educators can create a more inclusive and effective learning environment that supports students' comprehension and academic success. (Alqahtani, 2021).

CONCLUSION

In conclusion, regarding the level of reading comprehension among Grade 7 students before the implementation of the Graphic Organizer Intervention, the study found that most students were at the low level. This indicates that prior to the intervention, many learners struggled with identifying key ideas, organizing textual information, and making inferences. The lack of structured strategies contributed to their difficulty in fully grasping the meaning of texts, highlighting a need for instructional support.

After the implementation of the Graphic Organizer Intervention, there was a clear improvement in students' reading comprehension levels. The majority of students progressed to the high level, as evidenced by their post-test scores. This improvement suggests that the use of visual tools such as story maps, sequence charts, and concept webs effectively aided students in breaking down complex texts, enhancing both understanding and retention.

A significant difference was observed between the pretest and post-test results, confirming that the Graphic Organizer Intervention had a meaningful impact on students' reading comprehension skills. Statistical analysis supported the conclusion that the intervention was effective, with students demonstrating greater ability to analyze, interpret, and engage with texts after structured visual support was introduced.

Students' insights further validated the positive impact of the intervention, as many expressed increased focus, interest, and confidence in reading activities. They appreciated how graphic organizers helped them simplify and visualize textual content, making reading more manageable and enjoyable. These reflections underscore the importance of using student-centered approaches to make learning more accessible and engaging.

RECOMMENDATION

Based on the study's findings, it is recommended that teachers begin with diagnostic pretests to identify students' reading comprehension needs. Given the improvement shown in post-tests, graphic organizers such as the Butterfly Life Cycle Wheel, Emojigraphic, and Flower Diagram should be regularly integrated into reading instruction to help students organize ideas and better understand texts.

A structured intervention program using graphic organizers is also recommended, especially for struggling readers, with clear guidelines and consistent implementation. Student feedback highlighted greater engagement and comprehension, suggesting that interactive and collaborative activities using graphic organizers should be promoted.

School administrators should provide training on effective use of these tools and other evidence-based strategies. Teachers are also encouraged to conduct ongoing assessments to monitor progress and refine instruction. Lastly, future research should explore the use of graphic organizers in other subjects and grade levels to assess their broader impact on student learning.

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