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Effectiveness of Multimedia and Text-Based Reading Approaches to Grade 10 Students' Reading Comprehension Skills

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Abstract

Reading Comprehension skill is essential for learners to achieve a certain standard level. It is multifaceted that it connects to all other skills like writing, listening, and speaking. Thus, the interconnectedness of reading and comprehension encapsulates the students' overall reading abilities. The core of this study was to find out whether multimedia and text-based reading approaches are effective in improving Grade 10 students' reading comprehension skills. The participants were 132 Grade 10 students in a public school in Misamis Oriental. Sixty-six (66) students were exposed to multimedia reading (experimental group) and sixty-six (66) students in text-based reading (control group). The study yielded the following findings: (1) Reading comprehension skills of both groups increased gradually in all reading comprehension components as revealed in the post-test data reflected in the overall mean; (2) there is a significant difference in all reading comprehension components *Identifying vocabulary, Sequencing events, Identifying main idea and key details, and Making inferences*; in the overall skills of both groups with the post-test having higher means; (3) both groups revealed a significant difference in the overall result increment. This study further claims that multimedia and text-based reading approaches contribute to the enhancement of the participants' reading comprehension skills. For the suggestion, having a variety of techniques to teach reading will be quite beneficial to improve students' reading comprehension skills, especially in this time of pandemic where alternative delivery modalities had been implemented.

Keywords: Reading Comprehension Skill, Multimedia Reading, Text-based Reading

Introduction

Distance education is a type of education in which teachers and students are physically separated during instruction and various technologies are used to enable student-teacher and student-student communication. It is popular currently because of the pandemic, which makes face-to-face classes impossible. It has used a variety of methods to ensure learning continuity. Students can thus continue their education in remote settings using online/offline platforms and other varied modalities. It has been defined as a cutting-edge means of simultaneously delivering instruction to students in multiple locations.

With this "new normal" in education, various alternatives have emerged to prepare the way for implementing recognized learning modes. However, there are still many students who are having academic difficulties in school. These students may not be eligible for advancement or may not be able to achieve mastery. As a result, even if promoted, students will continue to struggle in class to cope with their academic abilities and complete their academic responsibilities.

According to the International Evaluation of Educational Achievement's recent release in December 2020, where they conducted a comparative assessment of student's achievements,

Filipino students lagged compared to students in other countries in Reading, Mathematics, and Science, with a reading comprehension rating of 340 points, "significantly lower" than the average 487 points from other countries. Reading was the main subject assessed and compared to all participating nations, and the Philippines scored below the average in Mathematics, Science, and Reading. Also, in December 2019, the Philippines scored the lowest in reading comprehension among 79 participating nations in the 2018 Programme for International Student Assessment (PISA).

Among all PISA-participating countries and economies, the Philippines had a high proportion of low performers. That means that 80% of Filipino students did not meet the minimal reading competence requirement. The students' poor English, Mathematics, and Science performance can be attributed to a lack of essential reading and comprehension skills.

As a result, the Department of Education (DepEd) has created the *Hamon: Bawat Bata Bumabasa* (3Bs Initiatives) to increase reading advocacy and commit to making every learner a reader at his or her grade level. Reading comprehension is a challenging process for Filipino students who have poor overall performance in reading. Since then, reading comprehension has been described as "one of the most challenging aspects of reading." The most extensively used of the four language skills is reading comprehension.

The researcher discovered that the identified school used in the study has difficulty conducting the *Brigada Pagbasa* Assessment; difficulty in terms of how to implement the reading session due to pandemic challenge. So, a high number of students with frustration levels in their reading comprehension skills was revealed during the reading assessment. In fact, during the implementation of *Brigada Pagbasa*, the researcher conducted a reading assessment and realized that there was a need for intervention. Because of this, it enlightens the researcher to address the problem with the student's reading comprehension skills and to identify components that may affect student performances, particularly in their reading comprehension skills.

Considering the challenges in the teaching and learning process, the Basic Education Learning Continuity Plan (BE-LCP) was designed in compliance with DepEd Order No.012 s.2020 to address the issue of students' low reading comprehension. In addition, it assures that learners access learning opportunities safely and securely through multiple learning modalities.

Furthermore, as mandated by RA 9155, which mandates safeguarding and promoting the right to access to quality education, the BE-LCP emphasizes learning through diverse learning delivery modalities, preserving students' and instructors' safety, and implementing several innovations and approaches and programs (DepEd).

Furthermore, Kintsch (2012) describes reading comprehension as the process of acquiring and constructing meaning. It is influenced by various factors, including reading styles and methodologies. The numerous reading methods and procedures that center around distinct theories, i.e., traditional reading theories, cognitive and metacognitive perspectives, are vital to address reading comprehension skills (Kintsch, 2012, 1998, van Dijk and Perfetti 2013 cited Kintsch (1983). The impact of multimedia and text-based reading approaches on students' reading comprehension skills is explored, including its reading styles, methodologies, and procedures. The identification of reading theories, and the techniques used in text-based reading approaches has yet to be defined as to whether or not they are genuinely beneficial; the same can be said about the multimedia reading approach. As a result, it is critical to determine whether multimedia or text-based reading approaches is helpful in improving students' reading comprehension skills.

The relevance of this topic in the development of this study stems from the developing problem of today's literacy crisis, namely, poor reading comprehension performance. It would somehow show the ability of the student to increase their reading comprehension skills in some way. This research study aimed to help school administrators, language department, language teachers and students to build consciousness on the recurring reading comprehension problem. Furthermore, this study would show whether or not students might improve their reading performance using various reading approaches, such as multimedia and text-based reading approaches.

Statement of the problem

This quasi-experimental study sought to explore the effectiveness of multimedia and text-based approaches in improving the reading comprehension skills of grade ten Junior High School students of a public school in Misamis Oriental, the school year 2021-2022. Specifically, it sought to answer the following: First, what is the participants' level of Reading Comprehension skills before and after the interventions in terms of: 1.1 Identifying Vocabulary; 1.2 Sequencing Events; 1.3 Identifying the main idea and key details; and 1.4 Making Inferences or predictions. Second, how do the participants in each group differ in their reading comprehension skills rating before and after the interventions? and lastly, is there a significant difference in the reading comprehension rating increments of the two groups?

Theoretical/ Conceptual Framework

This study claims that multimedia and text-based reading methods benefit students' reading comprehension skills. Both approaches are advantageous to the alternative delivery modality in this pandemic, where various modality was used because face-to-face reading assessment is still not viable. As assumed in this study, one of the approaches to developing the Reading Comprehension Skills is the Multimedia Reading Approach. Tran (2013) cited Fenrich 1997defines that multimedia is the exciting combination of computer hardware and software that allows for integrating video, animation, audio, graphics, and testing resources to create effective presentations on a low-cost desktop computer. It is anchored on Mayer and Moreno's (1999) Cognitive Theory of Multimedia Learning which states that deeper learning could occur when information is presented in both text and graphics than by text alone. This theory proposes three main assumptions when it comes to learning with multimedia; the first is *Information Processing* which includes dual channels (auditory/verbal and visual/pictorial processing) sometimes referred to as Dual-Coding theory); the second is that each channel has a limited (finite) capacity (similar to Sweller's notion of Cognitive Load) where information leads to one of three different types of processing in the brain. The third is learning is an active process of filtering, selecting, organizing, and integrating information based on prior knowledge (Mayer, 2014).

Also, the principles of multimedia learning, particularly the redundancy principle, states that "People learn better from graphics and narration than some graphics, narration, and printed text" (Wiley Education, 2021). It suggests that multimedia messages are most effective when learners encounter just words and graphics. It also employs the Modality Principle which postulates that "People learn more deeply from pictures and spoken words than from pictures and printed words." Finally, this study utilizes the multimedia principle which states that "people learn better from words and pictures than from words alone."

This notion has been backed by Mayer (2008) as cited in Sandoval (2016) which regarded multimedia learning as learning from pictures in dynamic or static forms, and words can be written or spoken. Using multimedia like pictures, text, sound, and video in one place delivers multimedia instructions. In addition, the elements of multimedia utilized by Samat and Aziz (2020) are audio, picture, and video. Further, teachers can use multimedia to combine text, graphics, animation, and

other materials into one package to offer comprehensive information to their students to meet course objectives. Multimedia allows for the interactive, animated demonstration of complex processes and the natural and intuitive interconnection of instructional content with other related topics (Crosby & Stelovsky, 1995 cited in Yamauchi, 2008).

This research study is anchored in the utilized multimedia tools of Samat and Aziz (2020) such as links, videos, pictures, text, sound, and online applications crafted and designed by the teacher in an online environment before delivering multimedia reading instructions to students. Furthermore, the Research and theory in multimedia learning focus on how people learn from words and pictures in computer-based environments.

More so, identifying the Multimedia environments that include online instructional presentations, interactive lessons, e-courses, simulation Games, virtual reality, and computer-supported, in-class presentations (Mayer, 2005).

Another approach assumed in this study to develop the Reading Comprehension Skills is the Text-based Reading Approach. It is anchored on Text-based instructional strategies utilized in text-based reading that rely on written directions and information rather than visual or other instructions (Boyd, 2021).

Furthermore, Boyd (2021) stated that text-based learning entails teaching reading by basing lessons in a variety of texts. In Text-based learning, there are two levels of instruction that can occur. First, it engages the student's ability to discover differences and similarities, as well as mastering the approach to understanding different types of texts and their content (text-based cited by Boyd 2021); and second, learning occurs through the interaction of texts with text-based learning of content. Print-based materials demonstrated improved comprehension skills in terms of metacognitive learning (Jeong, 2012). In addition, reading the texts available to students hinges on the idea that when teachers make the meaning of a text, they can better support students (A Text-Based Approach to Planning Close Reading). Although students could recall the basic ideas regardless of text type,

Similarly, Singer and Alexander (2016) discovered that when reading print, they were better able to recall critical aspects related to the core idea and other pertinent concepts.

The nature of text-based reading in its printed texts have always played an important part in education. It makes text reading easier; they have traditionally been an important part of education. The beginning and end of a written text can be traced back to the beginning and end. A printed text is tangible material with a beginning and an end. It is also hierarchical, designed for personal reading, and gives the reader a linear and static reading experience. In a printed text material, "the reader has little choice but to follow the authors' storyline or explanatory structure. The reader can rearrange what they read by flipping between pages when reading printed information intended to be read sequentially (Nur Asima Sidabutar et al., 2022). Since the pandemic, all public schools have implemented alternative delivery modalities; thus, printed texts have been used to support learning.

Moreover, this reading approach is known to be a linear process by which readers decode a text word by word, linking the words into phrases and sentences. The emphasis on reading as a word-recognition response to the printed words. In other words, textual comprehension involves adding the meanings of words to get the meanings of clauses (Anderson, 2018)

The reading approach takes several processes from identifying the purpose of reading, its form or type of text to the general features of the text locating the topic sentence, supporting details

conclusion purpose, making predictions then finally, attempting to form summary, conclusion inference of what was read (Pardede, 2008).

According to NSW Education, in reading, students can read silently with comprehension and independently with text-based material, allowing students to read conveniently. As a result, the text-based reading approach and the theories mentioned earlier, and perspectives provide this research study with a framework for composing the reading materials to be used. Unlike multimedia, where numerous multimedia techniques will be used, the material is explicitly written in words and printed for students to read and answer.

As anchored in the study of Garcia, Rigo & Jimenez (2017), they concluded that a text-based reading approach alone does not improve the student's ability to succeed, same to say with a multimedia reading approach alone. Therefore, this study seeks to investigate the approaches and the ability to succeed in answering reading comprehension questions.

Reading comprehension is considered the dependent variable in the study. Kintsch (2012), as cited in Samiel and Ebadi 2021, mentioned reading comprehension as the process of acquiring and constructing meaning from written text. It is a dynamic process between the recognition of words and concepts.

In addition, Cetin 2018 cited that reading is a complex process that consists of different operations in the brain, such as seeing, understanding, vocalization, comprehension, and construction. Therefore, it requires a high-level cognitive process (Perfettu & Stafura, 2014) cited by (Rochmiyati et al., 2021). They are supported by Rites 2013 defined reading comprehension as a multi-component, complex process that involves interactions between the reader and text.

The student's reading comprehension is the ability to process text, understand its meaning, and integrate it with what the reader already knows. Students' performance on reading comprehension is most strongly related to the components of reading comprehension (Perfetti, 1985 cited by McNamara et al., 2014)

As The Department of Education (2019) highlights the components of reading comprehension in the implementation of reading activities such as identifying the main idea and key details, sequencing events, answering questions, making inferences or predictions, and identifying Vocabulary (Rites 2013; Iris Center, Ascend learning center 2019; Honig et al. 2013 cited in reading Naturally 2021)

Moreover, there are various effective methods of assessing reading comprehension according to Signal 2020, like creating journals, portfolios, reading logs, checklists, multiple-choice questions, recall protocols and summaries, vocabulary tests, and question and answer. Hence, this research study targets effective methods in assessing students reading comprehension through various methods like question and answer, vocabulary tests, and multiple-choice questions.

Language is the most common form of oral and written communication (DepEd, 2016); this Research focuses on Component 3: Making Meaning via Language, which attempts to increase students' reading comprehension. Some reading comprehension components to aim include identifying the main idea and key details, sequencing events, making inferences or predictions, and identifying unfamiliar Vocabulary (DepEd, 2016; DepEd 3Bs Initiative 2019; Rites 2013; Ascend, 2019; Iris Center 2021; Honig et al. 2013 cited in reading Naturally 2021).

Further, reading is a commonly used activity in the educational process. It is a difficult task (Crawley & Mountai, 1995). Hence, reading comprehension is a reading activity that tries to provide information.

Further, the process of understanding the author's thoughts or messages is known as reading comprehension (May & Rizzardi, 2002). Reading comprehension also entails connecting one concept to another.

A critical reader will connect to see if a term in the text is difficult to interpret when used in sentences and paragraphs. Reading is a complex cognitive activity and a complicated process (Perfetti & Stafura, 2014). In addition, the source of knowledge, cognitive processes, and intelligence are all factors in reading comprehension (The Development of Personal-Cooperative Model in Building the Reading Comprehension Skills 2021).

One of the reading comprehension components is Vocabulary development, which is the act of learning new words to use in everyday life as a foundation for language learning. It also helps activate and create background information to connect with the text, and vocabulary knowledge can improve reading comprehension (Weiser, 2013). Furthermore, knowing the definition of a term indicates the possibility of being able to read and interpret it in context. There is a constant need to expand the stock of vocabulary that can be comprehended and used in context. Word meanings account for 70 percent to 90 percent of "vocabulary development" as a consequence of comprehension and as a precursor of comprehension (Bromley, 2007 cited in Tomas et al., 2021).

Additionally, youngsters can quickly add them to their word bank. This method of indirect vocabulary learning is incredibly successful for children who have already been exposed to a large and diverse vocabulary before starting school. The explicit teaching of Vocabulary is vital for those children who have a restricted vocabulary and limited access to vocabulary resources (Beck & McKeown, 2007 cited in Tomas et al., 2021).

According to Honig et al. 2013 cited in the Read Naturally 2021 page on Essential Components of Reading, the development of Vocabulary is linked to comprehension. Therefore, it is easier to understand the material if the reader has a vast vocabulary.

The national reading panel of the National Institute of Child Health and Human Development recognized three critical factors that supported the development of reading comprehension skills: vocabulary instruction, active reading, and strategy instruction preparation (National Institute of Child Health and Human Development 2004 cited in Bintz 2011).

Next, the reading comprehension component is Sequencing Events in reading, which is essential in developing students' reading comprehension skills. A well-sequenced text provides order, flow, and context to the reader. It puts together text structure to better understand it and develop reading comprehension skills.

The order in which events happen helps students gain a clear understanding of what they are reading (Mac Donnchaidh, 2021; Gouldthorp, 2018; Kittelstad n.d; Carrie n.d; Reading Rockets n.d; Storyboard)

Another key concept being expressed, or the central theme, is the most important information about the concepts. In understanding the idea of reading material, identifying the main idea is the gist of the larger conceptual framework of a reading text. At the same time, the details support the main idea. The text's main idea can be comprehensible to students through the help of supporting details. (Cuesta College 2021; Columbia College 2021; Slideshare 2014, Venzon et.al 2010, Stevens & Vaughn 2019, Literacy Ideas 2021, Vener 2002; ReadNaturally 2021). Houston Community College highlighted in their TSI Assessment Preparation that the sentence's main idea makes the central point about the topic or subject of a paragraph (Fleming 2014, 2011).

Furthermore, SanGiacomo (2021) cited that the main idea of a passage and its supporting details helped improve reading comprehension skills. He pointed out that in reading, identifying the text's main idea better understanding the overall point. Furthermore, recognizing the supporting details meant to describe or expand the concept leads to identifying its main idea.

Moreover, making inferences is essential in assessing reading comprehension skills; it is about something that is not explicitly stated in the text; students must learn to draw on prior knowledge and recognize clues in the text itself; while predicting something about the text, they are about to read (ReadNaturally 2021, LiteracyIdeas n.d; TeacherVision Staff n.d; Squarespace n.d; Jones n.d). Finally, inference skills require higher-order thinking skills that help students become aware of what the text is all about (Marzano, 2010, cited in ReadingRockets, 2021).

In addition, inferring or predicting more often brings students a greater chance of being right, and supporting with various diagrams, charts, symbols, and drawings through graphic organizers boosts students reading comprehension skills (Oczkus n.d; Jones n.d).

Therefore, the Comprehension strategy draws readers to read between the lines, make connections, and draw a conclusion about the texts' meaning and purpose (Lumen Learning n.d). In addition, building a mental representation of the text and integrating new information helps readers comprehend the text better (Reed 2019, Mac Donnchaidh 2021).

In this study, the researcher utilizes the results of the pre-test and post-test given to the participants through a reading comprehension test from multimedia and text-based group. With the theories mentioned above and the concepts presented, the researcher argued that when teachers utilize multimedia reading and text-based reading approaches have a significant effect on students' understanding of reading materials and improve reading comprehension skills.

Related Literature and Studies

Reading comprehension as defined by Kintsch, 2012 cited in the study of Samiel and Ebadi 2021 is the act of acquiring and creating meaning from written text. It is a dynamic process in which words and concepts are recognized. According to Cetin (2018), reading is a complex process involving multiple brain functions such as seeing, understanding, vocalization, comprehension, and constructs. Therefore, it necessitates a high-level cognitive process (Perfettu & Stafura, 2014; National Reading Panel 2000; Victoria State Government n.d.), as Rochmiyati et al. 2021. Moreover, students' reading comprehension is their capacity to analyze literature, comprehend its meaning, and integrate it with prior knowledge. Since reading is an interactive process in which readers use suitable reading methods to develop a meaningful representation of a text, it plays an essential role in enhancing students' reading comprehension skills (Sabouri, 2016). As a result, to boost reading comprehension skills, this research study adopts multimedia and text-based approaches.

The following paragraphs will go over the four reading components of reading comprehension skills utilized in this study, namely: Identifying Vocabulary., Sequencing Events, Identifying the main idea and key details, and Making Inferences.

According to Honig 2013, Learning Vocabulary is fundamentally about learning the definition of words. Many Teachers believe that defining words before reading a text is an effective instructional strategy. Decoding and Vocabulary-building in reading comprehension are fundamental skills needed to increase students understanding of the text (Pressley n.d). There are types of vocabulary: listening, speaking, reading, and writing.

"Vocabulary knowledge is knowledge," writes Steven Stahl (2005), "the knowledge of a word not only implies a definition but also implies how that word fits into the world." Vocabulary

knowledge is not something that can ever be fully mastered; it is something that expands and deepens over a lifetime.

Moreover, vocabulary instruction entails much more than looking up words in a dictionary and using them in a sentence. Vocabulary is learned inadvertently through indirect word exposure and consciously through explicit training in specific terms and word-learning procedures.

A successful vocabulary program, according to Michael Graves (2000), has four components: (1) vast or extensive solo reading to broaden vocabulary; (2) particular word education to improve comprehension of literature containing such terms; (3) independent word-learning methodologies teaching, and (4) to encourage and increase learning through word awareness and word-play activities.

It plays a fundamental role in the reading process and refers to the words that students must understand to communicate effectively (Reading Rockets, 2021). Comprehending a new and unfamiliar word includes deliberately practicing various strategies like exploring its 1. Word parts (morphology); 2. Word families, 3. Word histories (etymology; 4. Spelling (orthography); 5. Multiple meanings; 6. Synonyms and antonyms; 7. Connecting to context (Quigley 2018; BBC 2021).

Masri's study on Vocabulary and Reading Comprehension in 2019 found that both the breadth and depth aspects of vocabulary knowledge are substantially connected with reading comprehension abilities.

Furthermore, Rousoulioti and Mouti (2016) found that teaching vocabulary tactics and practice to students validate its value and how it helps students improve their skills. Expanded comprehension is aided by increased language knowledge (Glende, 2013). H.M. and H.Ab. Sidek In their research findings, Rahim (2015) shows that a reader's vocabulary knowledge is one of the factors that influences reading comprehension performance in that language.

Moreover, a critical finding from research suggests that vocabulary learning never stops (Smith, 1998); it is a natural and lifelong phenomenon. In addition, vocabulary learning continually encounters new words in meaningful and comprehensible contexts (Harmon et al., 2009) cited in Bintz, 2011.

Gouldthorp et al., (2017) discovered that sequencing ability is significant for understanding their investigation of the impact of sequencing on reading comprehension of students who were found to produce more accurate sequences. As a result, they have concluded that sequencing is a crucial skill for reading comprehension and has implications for their reading education and intervention programs.

The core idea is what the reading passage is all about, according to Postel 2016 of Dalton State College. It is the most general sentence, encompassing all reading aspects. Essential Strategies in Making Inferences are 1. Build Knowledge, 2. Study Genre, 3. Model your Thinking, 4. Teach Specific Inferences, 5. Plan Inferential Questions (Dewitz, 2017).

In addition, Reed 2019, in her study about Effective Literacy Lesson: Making and Evaluation Predictions to Support Comprehension, highlighted that supporting students in making meaning from the text is to teach students how to effectively generate and monitor predictions about what they are going to read (Reed 2019).

Thoughts on Inferences "The Art of Predicting" components such as thinking at a higher level, being able to infer good readers from struggling readers, gathering information from different

sources to make connections about what the text means, reading between the line, finding clues to understand the text better. (Oczkus, pg.83 n.d)

Multimedia Reading Approach

Using multimedia technologies to provide a variety of ways to display information can help students better understand complex texts. Luu et al., 2021 cited that technology is expected to improve language both inside and outside of the classroom, with no limitations. The teaching method and learning process have elevated to a new level - thanks to the recent integration of multimedia. Additionally, various interventions and extra activities, such as digital text, should be used to fit the requirements and interests of students. Furthermore, multimedia reading aids such as connected movies, animation, and music, among others, might lead to the ultimate aim of reading and understanding (Brann et al., 2009).

The Turkish Language Society (TLS) defines multimedia as "the platform where text, graphs, audio, and simulation are mixed with a material (www.tdk.gov.tr). Multimedia, according to Mayer (2001), is the presentation of topics using images with text as the synthesis of digital platforms such as text, audio, graph, animation, visuals, and video (Dinc 2000, Alkan et al., 2001). Moreover, Multimedia reading materials, according to the Center for Technology Implementation 2014, provide students with several flexible support options. It also assists students in becoming more comfortable with multimedia.

Samat and Aziz's study from 2020 demonstrates the use of multimedia learning in teaching reading comprehension, with numerous aspects of media serving as a good combination for comprehending the text. Furthermore, Saed et al. (2018) looked at the influence of multimedia tools via video technology on developing reading comprehension skills and found that they had a substantial impact on reading comprehension.

In addition, Ahmad and Khoo 2019 stated that interactive multimedia should be used as an instructional tool in teaching and learning. Students' reading abilities are reinforced and strengthened through a modified multimedia reading strategy. According to Ilhan and Oruc (2018), multimedia techniques improved students' academic progress compared to traditional methods.

Other reading instruction approaches are considerably superior, with higher increases in students' overall reading comprehension skills than traditional or text-based reading approaches, according to Kawaguchi, Janet (2011) and Tambunan et al. (2017).

According to Sandoval (2016), multimedia tools improve high school pupils' reading comprehension skills. It was also proposed that displaying visual material with descriptive audio instead of written text is more effective (Mayer & Moreno 1998 as cited by Clark & Mags 2008).

Text-based Reading Approach

According to the National Reading Panel report (NRP; NICHD, 2000), an individual must develop phonemic awareness, phonics, vocabulary, fluency, and comprehension of connected text to generate and grasp reading (Koppenhaver, 2000). Reading that follows standard conventions in terms of form, content, and use in order to generate and comprehend text-based reading; that promotes phonemic awareness, phonics, vocabulary, and text comprehension (National Reading Panel n.d; Erickson & Koppenhaver n.d). They generally believed that reading should be approached straightforwardly, whereas text-based reading is accustomed to using print-based materials to promote reading comprehension skills. In addition, the text-based reading approach, according to Brown 2001 stated that the methods and techniques of understanding are applied while reading text-based material in print. Text-based employs the use of different genres of text genres to enhance language development while focusing on reading to improve other language

skills. This method is especially beneficial for students who prefer to learn a language through text rather than other methods (Darrin, 2016).

Methods

This study employed a quasi-experimental research design method. It analyzed data collected from pre-test and post-test in both multimedia reading approach and text-based reading approach groups. Aussems, Boomsma, and Snijders (2011) described the quasi-experimental design as an intervention effect that investigates by comparing the performance of two groups. These groups were identified prior to the implementation of the treatment before the course of the experimentation. Based on findings from a pre-test provided before the study and a post-test given after the experiment, these two reading approaches were used to investigate the effectiveness of improving reading comprehension skills. A minimum of six weeks of instructional implementation was allotted for the experimentation and treatment of the study.

The study was conducted on the Grade ten students in a public school in Misamis Oriental. The participants met applicable criteria, such as accessibility and willingness to participate. They were the researcher's students in the same institution. There were 132 participants, divided into two groups of 66 grade ten students, randomly selected from a total of four regular classes in one teaching load for S.Y. 2021-2022.

The instrument was a researcher-modified reading comprehension test lifted from the standardized material from The Philippine Informal Reading Inventory (PHIL-IRI) 2018 and Division Reading Assessment Reading Material. a 40-item multiple-choice test subdivided into the four components of reading comprehension skills. The number of questions was divided by ten items per component that outline the four reading comprehension components: 10 items for Identifying Vocabulary; 10-items for Sequencing Events; 10 items for Identifying the Main idea and Key Details, and ten items for Making Inferences or predictions.

The following statistical tools were used to organize the data in this study: For Problem Number 1, a descriptive statistical method, namely: frequency distribution, percentage distribution, mean distribution, and standard deviation, was used according to the components of the reading comprehension skill based on the result of each group's performance during pre-test and post-test. For Problem Number 2, t-tests for paired samples were employed to determine if there were any significant differences in the performance of both groups' reading comprehension test results before and after the treatment exposure. For Problem Number 3, a t-test for the independent samples was used to determine if the two groups differ significantly in their performance increment.

Discussion of Results

This part presents the analysis and interpretation of the data collected during the study.

Problem 1: What is the student's level of Reading Comprehension skills before and after the interventions in terms of: 1.1 Identifying Vocabulary; 1.2 Sequencing Events; 1.3 Identifying the main idea and key details; and 1.4 Making Inferences or predictions

Table 1 presents the frequency, percentage, and mean distributions of the reading comprehension skill results considering the *Identifying Vocabulary* component. Data revealed that the group's performance exposed to multimedia reading was *good* in the pre-test (M=6.16). After the intervention, their performance was *very good* (M=7.77). The table further revealed that in the group exposed to multimedia approach, the number of participants in the outstanding category

increased from 18.8 percent in the pre-test to 46.97 percent in the posttest, which shows that almost half of the students were able to answer the reading material correctly after the intervention

Table 1. Frequency, percentage, and mean distributions of the participants' reading comprehension skill before and after the interventions

(Identifying vocabulary)

		MULTIMEDIA APPROACH				TEXT- BASED APPROACH			
		Pretest		**Posttest**		**Pretest**		**Posttest**	
Range	**Interpretation**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
9 – 10	Outstanding	12	18.18	31	46.97	9	13.64	25	37.88
7 – 8	Very Good	20	30.30	17	25.76	16	24.24	18	27.27
5 – 6	Good	17	25.76	11	16.67	10	15.15	16	24.24
3 – 4	Fair	13	19.70	7	10.61	21	31.82	5	7.58
1 – 2	Poor	4	6.06	0	0.00	10	15.15	2	3.03
Total		**66**	**100.0**	**66**	**100.0**	**66**	100.0	66	**100.0**
Overall Mean		**6.16**		**7.77**		**5.29**		**7.37**	
Interpretation		**Good**		**Very Good**		**Good**		**Very Good**	
Standard Deviation		**2.26**		**2.17**		**2.82**		**2.26**	

The findings indicate that the use of Multimedia Reading Materials has a moderate effect on students' reading comprehension skills. The intervention must have worked since no participant is categorized in the poor category after the intervention.

In the group using the text-based reading approach, vocabulary skill was described as *good* at the pre-test (M=5.29) and *very good* (M=7.37) during the post-test. Given the increase in scores and the overall mean, the intervention appears to affect students' vocabulary skills. In addition, the number of students in the poor category (15.15 percent) was decreased to only 3.03 percent.

As observed by the researcher during the vocabulary instruction, the results implied that various multimedia tools encouraged students to unlock unfamiliar words during the class session easily.

In addition, video as supplementary material to learn the fundamental concept of the lesson made the students easily catch up and understand the terms. Thus, this result of the reading comprehension component dramatically impacts the performance of the student's reading comprehension skills before and after the intervention.

The findings are supported by previous studies by Webb (2007) and Widhiarso (2015) and further assert the importance of vocabulary skills in developing lexical knowledge among language learners. However, other findings suggest that finding alternative platforms to deliver vocabulary instructions will be difficult, as the results and movement of scores for both strategies used in the study appear rigid. Same with the findings of Talibong & Abdulfattah (2019), which revealed a better vocabulary competence when exposed to interactive reading. According to this study's findings, multimedia and text-based reading can be classified as interactive. In multimedia, interaction takes place through various multimedia tools supported by the reading material, whereas in text-based interaction, instruction is self-directed and understandable through printed text material.

Table 2 presents the frequency, percentage, and mean distributions of the reading comprehension skill results considering the *Sequencing Events* component. Data reveal that the group's performance exposed to the multimedia reading approach was *very good* in the pre-test (M=7.06). Their performance improved to *outstanding* (M=8.22) after the intervention. Furthermore, a

number of participants improved their high performance from 25.76 percent in the pre-test to 59.09 percent in the post-test.

Table 2. Frequency, percentage, and mean distributions of the participants' reading comprehension skill before and after the interventions

(Sequencing events)

Range	Interpretation	MULTIMEDIA APPROACH				TEXT-BASED APPROACH			
		Pretest		**Posttest**		**Pretest**		**Posttest**	
		F	**%**	**F**	**%**	**F**	**%**	**F**	**%**
9 – 10	Outstanding	17	25.76	39	59.09	16	24.24	32	48.48
7 – 8	Very Good	23	34.85	14	21.21	22	33.33	19	28.79
5 – 6	Good	23	34.85	8	12.12	14	21.21	8	12.12
3 – 4	Fair	3	4.55	5	7.58	8	12.12	4	6.06
1 – 2	Poor	0	0.00	0	0.00	6	9.09	3	4.55
Total		**66**	**100.0**	**66**	**100.0**	**66**	**100.0**	**66**	**100.0**
Overall Mean		**7.06**		**8.22**		**6.66**		**7.75**	
Interpretation		**Very Good**		**Very Good**		**Good**		**Very Good**	
Standard Deviation		**1.75**		**1.95**		**2.48**		**2.11**	

The data in table 2 show that in the multimedia group, the number of participants whose performance is classified under the outstanding has increased from 25.76 percent in the pretest to 59.09 percent in the post-test. The same is true with the students exposed to the Text-based Reading Approach; the number of participants in the outstanding category increased from 24.24 percent in the pre-test to 48.48 percent in the post-test.

The group exposed to the text-based reading approach in the sequencing event component was described as *good* during the pre-test (M=6.66) and their performance increased to *very good* (M=7.75) after the intervention. Almost a 25 percent increase of the participants got outstanding scores after the intervention.

A minimal number of 1-2 (poor) scores during the pre-test decreased after the intervention, which is evident in the post-test result of the text-based reading approach.

These findings may indicate that the kind of instruction during the intervention affects the results. Both groups were exposed to real-life or day-to-day experiences that highlighted the chronological order of events through a different approach: in the experimental group, a video animation was provided to showcase the events or scenario from Day 1 to the following days, and in the control group, a printed copy of the events in order was provided.

More accurate sequences were produced in all conditions of the sequencing tasks (Gouldthorp et al., 2017), promoting reading comprehension skills. In addition, these findings show that students in both groups responded positively to the interventions and were primarily interested in sequencing events. Reading comprehension of students discovered that sequencing ability is significant in understanding the material and producing more accurate sequences (Gouldthorp et al., 2017).

Table 3 presents the frequency, percentage, and mean distributions of the reading comprehension skill results considering *Identifying the Main Idea and key detail*. Data revealed that the group's performance exposed to multimedia reading was described as *fair* in the pre-test (M=4.18), and after the intervention, their performance was described as *good* (M=5.90).

Table 3. Frequency, percentage, and mean distributions of the participants' reading comprehension skill before and after the interventions

(Identifying main idea)

		MULTIMEDIA APPROACH				TEXT- BASED APPROACH			
		Pretest		**Posttest**		**Pretest**		**Posttest**	
Range	**Interpretation**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
9 – 10	Outstanding	0	0.00	0	0.00	2	3.03	6	9.09
7 – 8	Very Good	6	9.09	20	30.30	4	6.06	18	27.27
5 – 6	Good	22	33.33	38	57.58	18	27.27	26	39.39
3 – 4	Fair	27	40.91	8	12.12	26	39.39	12	18.18
1 – 2	Poor	11	16.67	0	0.00	16	24.24	4	6.06
Total		**66**	**100.0**	**66**	**100.0**	**66**	**100.0**	**66**	**100.0**
Overall Mean		**4.18**		**5.90**		**4.02**		**5.80**	
Description		**Fair**		**Good**		**Fair**		**Good**	
Standard Deviation		**1.62**		**1.29**		**1.92**		**1.96**	

During the pre-test, the performance of the group exposed in text-based reading approach was described as *fair* (M=4.02) but improved to *good* (M=5.80) after the intervention. An increase in scores that reveal the use of a text-based reading approach in terms of identifying ideas posed an overall mean and understanding that only very few students reach the outstanding level from 3.03 percent to 9.09 percent. Also, the highest percentage of 24.24 percent of poor performance during the pre-test drastically decreased to 6.06 percent during the post-test.

The performance of the group under multimedia reading had higher scores increased 5-6 (good) from 33.33 percent to 57.58 percent, with no score falling under 1-2 (poor) after the intervention. On the other hand, the performance of the group under the text-based reading approach, described as fair to good in their overall mean during the pre-test and post-test, managed to increase performance.

The data in table 3 show that the group under multimedia reading has no outstanding scores, while in the text-based reading approach outstanding score in the pre-test was 3.03 percent, and it goes up to 9.09 percent after the post-test.

These findings show that this reading comprehension component significantly reveals the students' reading comprehension skills. The exploration of various materials posed a variety of meanings, as revealed throughout the intervention in both groups. Hence, the performance of both groups shows "*good" results in the post test*. For this reason, it may perhaps entail that student have tendencies to analyze information differently, and they are frequently unable to pay attention to the supporting facts that would enable them to identify the material's essential point. As a result, the problems in determining the main ideas and their supporting details and assessing the entire material may be challenging (Yuvirawan et al., 2021, Dahlan, 2021). This result is also consistent with the findings of Sitohang et al. (2021), who stated that identifying the main idea of material is complex.

As a result, the researcher concludes that the focus should be on mastering the concept of recognizing the main idea and its supporting details, as evidenced by the findings of both groups. They show how to identify this component and comprehend the material's purpose. However, the main topic may be provided in an abstract form or be positioned elsewhere in the paragraph at times.

Therefore, prioritizing tactics for enhancing this component must be highlighted. Topics, Key Ideas, and Support supported in Toonder & Sawyer's 2021 findings imply that intervention instructions may be a helpful technique for increasing students' identification of the main idea: indicating a considerable improvement of the participants' reading comprehension skills (Ilter, 2018).

Table 4 presents the frequency, percentage, and mean distributions of the reading comprehension skill results considering the *Making Inferences* component. The group exposed to multimedia reading performed *fair* (M=4.69) before the intervention and *good* (M=6.63) after that.

Table 4. Frequency, percentage, and mean distributions of the participants' reading comprehension skill before and after the interventions

(Making inferences)

Range	Interpretation	MULTIMEDIA READING APPROACH				TEXT-BASED READING APPROACH			
		Pretest		**Posttest**		**Pretest**		**Posttest**	
		F	**%**	**F**	**%**	**F**	**%**	**F**	**%**
9 – 10	Outstanding	0	0.00	5	7.58	2	3.03	8	12.12
7 – 8	Very Good	13	19.70	35	53.03	9	13.64	21	31.82
5 – 6	Good	22	33.33	18	27.27	20	30.30	23	34.85
3 – 4	Fair	21	31.82	8	12.12	28	42.42	13	19.70
1 – 2	Poor	10	15.15	0	0.00	7	10.61	1	1.52
Total		**66**	**100.0**	**66**	**100.0**	**66**	**100.0**	**66**	**100.0**
Overall Mean		**4.69**		**6.63**		**4.64**		**6.06**	
Description		**Fair**		**Good**		**Fair**		**Good**	
Standard Deviation		**1.88**		**1.49**		**1.83**		**1.93**	

During the pre-test, the group's performance using the text-based reading approach was described as *fair* (M=4.64) but improved to *good* (M=6.06) after the intervention. The data revealed that the group under multimedia reading had higher scores of 7-8 (very good) from 19.70% to 53.03%, with no score falling into scores 1-2 (poor) after the intervention as reflected in the post-test data.

On the other hand, the text-based group, had a performance described as generally good during the post-test. The number of participants increased from 13.64 percent in the pretest to 31.82 percent in the post test.

Table 4 shows that the 7-8 score range was very good in both groups and considerably improved, which the researcher attributed to the kind of instruction given. Making an inference entails leveraging what students already know or have been exposed to in order for them to make educated guesses about what they do not know or read between the lines.

In multimedia reading, where multimedia tools were used, students could easily make inferences by combining the cues offered by photos, videos, and other media, rather than simply text alone, with their personal experiences that could be related. Furthermore, by providing supporting materials, students can figure out what is not immediately stated, making the learning process memorable. Finally, the ability to reread the contents when the reading material is delivered text-based can be ascribed to why many students improved their results following the intervention.

The components of reading comprehension skills reveal significant findings before and after the intervention. Reading comprehension necessitates a multi-step process involving multiple brain functions like vision, comprehension, vocalization, comprehension, and construction (Cetin, 2018;

Perfettu & Stafura, 2014; Rochmiyati et al., 2021). Furthermore, students' ability to analyze and interpret the meaning and integrate prior knowledge improves their reading comprehension skills (Sabouri, 2016).

Table 5 presents the summary result of the reading comprehension skill components. According to the findings, the group exposed to multimedia reading had a total performance of 22.11 in the pre-test and 28.55 in the post-test.

Table 5. Summary table of the overall results of the participants' reading comprehension skill

Components of Reading Comprehension Skills	MULTIMEDIA APPROACH		TEXT-BASED APPROACH	
	Pre-test	Post Test	Pre-test	Post Test
Identifying Vocabulary	6.16	7.77	5.29	7.37
Sequencing Events	7.06	8.22	6.66	7.75
Identifying the main idea and key details	4.18	5.90	4.02	5.80
Making Inferences or predictions	4.69	6.63	4.64	6.06
OVERALL READING COMPREHENSION SKILL	22.09	28.52	20.61	26.98

On the other hand, the group exposed to text-based reading scored 20.61 in the pre-test and improved to 27.00 in the post-test, indicating a moderate boost in overall performance for both groups from pre-test to post-test. However, it may be inferred that there is a need to examine and consider other viable ways for improving reading comprehension skills in *Identifying Unfamiliar Vocabulary, Sequencing Events, Identifying the main idea and key details, and Making Inferences or predictions.*

It is probable that these components demand higher-level language thinking skills because they entail analyzing, understanding, comprehending, and effectively recalling prior knowledge to provide beneficial results for students' reading comprehension skills. This echoes the finding of Tomas et al. (2021) that the majority of the students need improvement of their reading comprehension skills which can be attributed to some of the components revealed. Such a predicament reflects the students' reading comprehension skills that showcase the magnitude of the problem that students in Grade 10 level may need to be supported, and language teachers must be ready to address.

Problem 2. How do the participants in each group differ in their reading comprehension skills rating before and after the interventions?

Ho1: There is no significant difference in the participants' reading comprehension skills ratings before and after the interventions.

Table 6 reveals a significant difference in the participants' reading comprehension skills ratings before and after the interventions. The significant differences in the overall reading comprehension skill for the multimedia reading approach (t=13.81**, p=.000) and text-based reading approach (t=8.78*, p=.039) means that the null hypothesis can be rejected because there is a significant difference in the pretest and post-test results. Both approaches reveal a significant difference in

the participants' performance before and after the interventions, both in the overall performance and in each of the components.

Table 6. Result of the test of difference in the participants' performance before and after the interventions

Components of Reading Comprehension Skills	MULTIMEDIA APPROACH				TEXT-BASED APPROACH			
	Pre Test	**Post Test**	**t value**	**p**	**Pre Test**	**Post Test**	**t value**	**P**
Identifying Vocabulary	6.17	7.77	9.45**	.000	5.29	7.38	4.76**	.000
Sequencing Events	7.06	8.23	7.05**	.000	6.67	7.76	2.77*	.007
Identifying the main idea and key details	4.18	5.91	9.26**	.000	4.02	7.76	10.39**	.000
Making Inferences or predictions	4.70	6.64	11.60**	.000	4.64	6.06	9.41**	.000
OVERALL READING COMPREHENSION SKILL	22.11	28.55	13.81**	.000	20.61	27.00	8.78**	.000

**significant at 0.01 level *significant at 0.05 level

In the multimedia group, the effectiveness may be attributed to the overall atmosphere of reading instruction and other aspects of students' reading comprehension skills, which confirms the findings of Samat Aziz's (2020) and Sandoval (2016) that revealed multimedia as effective in enhancing the reading comprehension skills of students.

For the group exposed to the text-based reading approach, the t-test revealed a significant difference in their performance before and after the treatment in all the components of reading comprehension.

In this study, both approaches developed the reading comprehension skills of the students. The effectiveness of both approaches is in consonance with the findings of Siswandi (2021) and Nur Asima Sidabutar et al., (2022) that both digital and printed materials have helped the participants develop their reading comprehension skills. In addition, the use of technology in multimedia resonates to learning English which brings a strong potential to enhance students' language skills (Van et al., 2021). Also, the research findings of Pham (2022) reveal that a wide range of IT tools or multimedia tools have shown a great help in promoting students' autonomy which improves their language skills.

The effects may be attributed to the use of the digital and printed materials used in this study, the multimedia, where there was technical support and digital materials; and in the text-based, where printed materials were provided.

In other words, the results show that multimedia and text-based reading approaches help and promote reading for better reading comprehension and enhance students' reading comprehension skills based on post-test results. Specifically, the effectiveness of both interventions in enhancing

the skills in making predictions may be due to additional reading strategies of discussion, teacher questions, visual content support, modeling, and creative language use.

Making predictions can be developed when the readers are enabled to activate their experience and background or world knowledge to understand the text. This finding was similar to what Suraprajit (2019) found that background knowledge plays a vital role in readers' prediction skills. Furthermore, constructing a goal of reading, and self-monitoring are helpful strategies to predict the text (Block, 1986; Sheorey & Mokhtari, 2001).

This positive performance of the students exposed to multimedia and text-based reading can be attributed to the strategy's unique approach to delivering reading instruction in class.

As observed by the researcher during the intervention, the student in the multimedia reading group participated actively and enthusiastically as they moved through the mechanics and progress of the class session. Moreover, the presentation of various multimedia files like videos, audio, animations, and pictures made the virtual classroom filled up with a fun and exciting experience. As a result, the students forget their inhibitions and apprehensions to engage actively in the activity with their classmates. These findings on the positive benefits provided by the multimedia reading approach further support the previous findings of studies conducted by Samat and Aziz (2020, Saed et al. (2018), Ahmad and Khoo (2019), Sandoval (2016), Kawaguchi (2011) and many other studies with similar findings.

Furthermore, the implications of this study can inspire language teachers and learners to utilize multimedia and text-based reading approaches in teaching and learning reading.

Problem 3. Is there a significant difference in the reading comprehension rating increment of the two groups?

Ho_2. There is no significant difference in the reading comprehension rating increment between the two groups.

Table 7 shows the difference in reading comprehension test result increments between the two groups of participants. The results demonstrated significant differences in the two groups' reading comprehension skill increments in the following components which are Identifying vocabulary ($t=5.43$, $p = .000$) and Sequencing events ($t=4.63$, $p = .000$) with the text-based approach group having higher mean increments ($M=2.24$ and $M= 1.84$ respectively). About 1.09 difference in the increase during the pre-test to post-test changes the results and shows an increase of students getting high scores from poor to excellent and outstanding results during the post-test.

Table 7. Result of the test of difference in the participants' increments in reading comprehension test results in the two groups

Components of Reading Comprehension Skills	MULTIMEDIA APPROACH		TEXT-BASED APPROACH		t value	P
	Mean Increment	SD	Mean Increment	SD		
Identifying Vocabulary	1.68	1.41	3.45	2.24	5.43**	.000
Sequencing Events	1.38	1.12	2.61	1.84	4.63**	.000
Identifying the main idea and key details	1.80	1.50	1.89	1.49	.349	.727
Making Inferences or predictions	2.00	1.42	1.48	1.22	2.23*	.027
OVERALL READING COMPREHENSION SKILL	6.71	3.77	7.26	4.60	.745	.458

*significant at 0.05 level **significant at 0.01 level

A significant difference is also revealed in the increments of the two groups' skill in making predictions (t= 2.23, p =.027) with the multimedia approach group having a higher mean increment (M=2.0). Thus, the null hypothesis in these dimensions can be rejected. No significant differences were revealed in the component in Identifying the main idea and key details as well as in the overall reading comprehension skill.

The significantly higher mean increments in identifying vocabulary and sequencing events by the text-based reading approach group indicate that students reading in print-text format performed much better on reading comprehension than students reading in multimedia, possibly because more modalities of text navigation were made available, and scrolling the text was not as difficult. They could go back to the text to check on unfamiliar vocabulary and review the order of the events as stipulated in the material.

This research backs up the findings of Dundar and Akcayir (2012), who observed that the text-based approach was easier to navigate, less stressful on the brain, and provided the reader with more free capacity for comprehension. Furthermore, Mangen, Walgermo, and Brnnick (2013) discovered that reading comprehension via technology was inferior to print because of the negative effects of navigation, display, and scrolling.

In making predictions however, the multi-media reading group has a significantly higher mean increment. The findings in this study showed that the group exposed to multimedia readng surpassed the other group. The nature of the multimedia reading approach used in class is engaging and catchy, with the presentation of information provided instruction or content using various multimedia tools such as pictures, graphics, animation, audio, and videos, as opposed to text-based reading, where content is presented design comprehensibly in a self-learning material, all of which are from their generation, making the learning experience more relatable and engaging. This must have contributed to their skills in predicting outcomes. This result finds consonance with the findings in Samat and Aziz's (2020, Saed et al. (2018), Ahmad and Khoo (2019), Sandoval (2016),

and Kawaguchi's (2011) studies with similar research designs, confirming that using multimedia tools to facilitate reading instruction is far more effective than using a text-based approach.

However, this is not true in the component on identifying the main idea and key details, as well as in the overall reading comprehension skills. The result showed no significant difference in the increments of the two groups. Evidence-based on the previous problem shows that multimedia and text-based reading approaches help students develop reading comprehension skills. These tools, which are used to supplement reading materials, help students improve their reading comprehension skills while demonstrating the flexibility of learning at this time.

During this time of the pandemic, students are exposed to alternative ways of learning, such as synchronous learning, which allows students to learn virtually using a variety of multimedia platforms while also printing with self-directed material. Since the result is comparable in these dimensions, it can be inferred that both approaches can equally effectively facilitate reading comprehension skill development. Furthermore, the implementation of the treatment substantially affects the movement of the scores for all reading comprehension components.

Conclusions

In a nutshell, it can be inferred that the use of Multimedia and Text-based Reading approaches have essential roles in improving the student's reading comprehension skills. It resonates a critical and challenging message to language teachers, language instructors, and program developers. These approaches to reading can be used by teachers to facilitate the development of their students' reading comprehension. This is in consonance with the principle of Schema Theory that entails reading comprehension as an interactive process between the text and the reader's prior background knowledge (Adams/Collins 1979, Rumelhart 1980). In addition, the three main theories, namely traditional or bottom-up processing, cognitive or top-down processing and metacognitive view in reading have been taken into consideration to explain the nature of reading approaches that plays an essential part of this study.

The following factors play a significant role in the development of students reading comprehension skills: (1) the quality of teachers' language teaching strategies and practices; (2) the amount of effort expended in the material preparation of instructional aid, and (3) appropriateness and practicality of the strategies used in carrying out instructions to a specific reading comprehension component skill.

The study also concludes that both approaches are generally comparable in developing reading comprehension skills for students. In addition, the two approaches can improve students' performance to a certain extent. Hence, the result of the study further asserts the previous findings of other research about the benefits of multimedia reading in reading instruction and learning than upholding text-based vocabulary instruction.

Teachers internalize the benefits of various reading techniques for delivering reading instruction to have a good impact on students' reading comprehension skills and keep up with the fast-changing educational landscape of the twenty-first century. However, according to what is genuinely taking place inside the four walls of the learning spaces, what is created by studies may remain a concept not practiced in reality. Finally, this research study is expected to give valuable references for the next researchers interested in carrying out research in a similar discussion.

Recommendations

Based on the implications, results, and conclusions, the following recommendations are hereby made to first, the school administration and language department, so that they may consider improving the schools' technological groundwork improvement designed to present opportunities

for multimedia use. They have the potential to improve and strengthen teachers' technology expertise. They may take substantial steps to provide and secure relevant instructional materials for language instructors/teachers in order to improve language teaching. Encourage teachers to make the most of various useful, efficient, and practical technologies and applications that can help with language acquisition, especially vocabulary development. Following that, language teachers should investigate more in-depth use of multimedia resources to aid the reading process. Additionally, they should investigate various multimedia resources and technologies that might capture students' interests, resulting to hopefully increased reading comprehension skills. They should also think about maximizing the potential of using multimedia in all subject areas in their classroom. Last but not least, to Future Researchers in order for them to broaden the scope of their study to include more approaches or strategies to use in assessing the students' reading comprehension skills and pursue a further investigation on the effectiveness of other multimedia tools in carrying out reading instruction, particularly in the integration of necessary reading comprehension skills.

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