

MULTIMEDIA PEDAGOGY: ITS EFFECT TO STUDENTS' LITERARY COMPREHENSION

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KeyWords

Literary Comprehension; Multimedia Pedagogy; Traditional Pedagogy; Stories, Students

ABSTRACT

Education has been significantly evolving and adapting new teaching strategies throughout the years. However, certain schools are still utilizing the traditional pedagogy, which becomes the central point of discussion in this study. The primary research question examines whether incorporating multimedia in the classroom can significantly influence students' understanding of literature. The study specifically compares the pre-test and post-test literary comprehension scores between 34 Grade 8 Quezon students which are divided into two groups: a control group receiving traditional instruction and an experimental group receiving multimedia-enhanced instruction in the Laboratory Junior High School of Mindanao State University – Buug. Employing a quasi-experimental design, this research facilitates the comparison of non-randomly assigned groups. The findings revealed that the control group's mean pre-test score was 49.47, categorized as "High," while the experimental group's mean pre-test score was 57.71, also "High." Post-test results showed a mean score of 54.88 for the control group "High" and 67.18 for the experimental group "Very High". Statistical analysis indicated a highly significant improvement in both pre-test and post-test scores within the control group ($p=0.006$) and the experimental group ($p=0.001$). Additionally, there was a significant difference in pre-test scores between the two groups ($p=0.014$) and a highly significant difference in post-test scores ($p<0.001$). In conclusion, this study affirms that multimedia pedagogy can effectively improve students' understanding of literature. The integration of multimedia elements such as videos, images, and audio-visual presentations not only enhances literary comprehension but also enriches the overall learning experience, suggesting a promising approach for educational practices.

INTRODUCTION

In an era marked by rapid technological advancement and societal transformation, the field of education finds itself at the crossroads of innovation and tradition. By navigating this advancing technological landscape, the integration of multimedia technology into the field of learning has become a central point of interest and discussion. This convergence of educational practices and technology holds the potential to reshape how students engage with academic content and foster an environment where learning is not just informative but also immersive. Within this context, one important area that requires in-depth investigation is the impact of multimedia pedagogy on students' comprehension of literary texts.

Literature has long been recognized as a foundational component of education, serving not only to transmit cultural heritage but also as a vehicle for critical thinking, empathy, and creativity. The ability to comprehend and analyze literary works is a crucial skill that students must acquire as part of their education. However, the traditional methods of teaching literature often rely heavily on printed texts and classroom discussions. While these methods have their merits, they may not always resonate with today's digitally native students, who are accustomed to consuming information and entertainment through multimedia channels.

Multimedia pedagogy, which involves the use of multimedia elements such as text, images, audio, and video in educational settings, has gained significant attention

in recent years. This approach aims to enhance students' learning experiences and improve their comprehension of various subjects, including literary texts. The integration of multimedia in pedagogy offers unique opportunities for students to engage with content in a more interactive and immersive manner (Takacs et al., 2014).

One of the key benefits of multimedia pedagogy in literature education is its ability to bring literary texts to life. Through multi-

media, students can visualize the settings, characters, and events described in literature. They can hear the dialogues and voices of characters, making the narrative more immersive and relatable. Further, multimedia can provide historical and cultural context, helping students better understand the social and political backdrop against which a literary work was written. These enhancements can significantly improve students' comprehension of complex literary texts and foster a deeper appreciation for the nuances of storytelling.

Furthermore, multimedia pedagogy enables active learning and student participation. Instead of passive consumption of information, students can engage with literary content through discussions, quizzes, interactive activities, and multimedia projects. These activities encourage critical thinking, creativity, and collaborative skills, all of which are essential in today's rapidly evolving world.

However, while the potential benefits of multimedia pedagogy in literature education are evident, it is also essential to address the challenges and considerations associated with its implementation. One primary concern is the need for appropriate access to technology and digital resources. Not all schools and students have equal access to multimedia tools and the internet. Thus, a digital divide may emerge, leading to disparities in learning opportunities. Overcoming this challenge requires careful planning and investment in infrastructure, ensuring that all students have equitable access to technology.

Thus, this forms the backdrop for this study, since there is a lack of utilization of technology in the Laboratory Junior High School of Mindanao State University – Buug Campus. The school's traditional approach to literature education may offer valuable insights into the potential impact of introducing multimedia pedagogy. This significant gap may provide the significance of multimedia instruction especially in the context of literary comprehension in an academic environment where technology is mostly underutilized. The respondents of this study are the Grade 8 Quezon students currently enrolled at school year 2023-2024 in Mindanao State University – Buug Campus.

The study holds significance as it has the ability to close important gaps in current teaching methods in Mindanao State University – Laboratory Junior High School. Multimedia components including movies, animations, and interactive graphics are now essential to the delivery of educational content in the digital age. But even with its extensive application, there is still a lack of thorough studies looking specifically at how multimedia teaching affects students' literary understanding.

By examining how multimedia pedagogy affects literary comprehension, this study adds to the body of knowledge on successful teaching methods in the digital age. Understanding how multimedia elements influence students' comprehension of literary texts can inform educators' instructional approaches, curriculum development, and the integration of technology in the classroom.

Furthermore, as literacy skills are essential for both lifetime learning and academic success, the results of this study may have a broader impact on practice and policy in the field of education. Through the effective utilization of multimedia in literacy education, educators can better prepare children for academic success and involvement in a world that is becoming more complex and interconnected by strengthening critical thinking, analysis, and communication skills.

Ultimately, this research fills a significant research gap in the field of education and provides beneficial data that can guide curriculum development, teaching approaches, and educational policy to improve literacy outcomes for all students.

LITERATURE REVIEW

Multimedia Pedagogy

Multimedia pedagogy involves integrating various forms of media, such as videos, images, and interactive elements, into educational practices to enhance learning experiences (Asllani & Paçarizi, 2021). Multimedia pedagogy, which involves the integration of various forms of media in teaching and learning, has gained significant attention in educational research. The use of multimedia tools, such as videos, images, and interactive elements, has been found to have a positive impact on student engagement, learning outcomes, and the overall educational experience (Hawkridge, 2003).

Media pedagogy emphasizes the learning process over the content itself. The focus is on helping students understand how mass media has evolved and teaching them the skills to create effective presentations. It aims to develop critical thinking skills so that students can analyze and understand the influence of media messages, whether they are in print or digital format. Instead of merely memorizing facts, students learn to critically engage with and interpret the media they consume. (Media Education Centre, 2018)

One area of interest in the study of multimedia pedagogy is its effect on cognitive processes and instructional design. Research has shown that multimedia learning can enhance cognitive processes such as attention, perception, and memory. By presenting information in multiple modalities, multimedia can facilitate the processing and integration of information, leading to better understanding and retention of knowledge. Additionally, multimedia can support instructional design by providing opportunities for active learning, problem-solving, and critical thinking (Hawkridge, 2003). For example, interactive multimedia applications have been developed to support low-literacy diabetes education, resulting in improved knowledge and self-care behaviors among patients (Gerber et al., 2005).

The impact of multimedia pedagogy on student performance and learning outcomes has also been investigated. A pilot study conducted on an introductory educational computing course found that the use of multimedia in course design had a positive impact on students' performance and online learning experience (Davis & Frederick, 2020). The study revealed that students who were exposed to multimedia elements, such as videos and interactive quizzes, performed better on assessments and reported higher levels of satisfaction with the course (Davis & Frederick, 2020). Similarly, a study conducted in elementary schools explored the need for interactive multimedia based on games in the 21st-century learning environment. The findings highlighted the potential of interactive multimedia to enhance student engagement, motivation, and learning outcomes (Saputri et al., 2018).

Furthermore, the effectiveness of multimedia pedagogy has been examined in the context of patient education and self-care. Multimedia psychoeducational interventions have been developed to support patients with degenerative conditions, such as chronic

diseases and palliative care (O'Halloran et al., 2014). These interventions aim to provide patients with information, resources, and support to enhance their self-care abilities and improve their quality of life. A realist review of multimedia psychoeducational interventions found that they can trigger mechanisms that produce desired outcomes, such as improved patient self-care behaviors (O'Halloran et al., 2014).

However, it is important to note that the effectiveness of multimedia pedagogy may vary depending on various factors, including the context, target audience, and instructional design. While research generally supports the positive impact of multimedia on teaching and learning, some studies have reported mixed findings (Davis & Frederick, 2020). Factors such as the quality of multimedia materials, the alignment between multimedia and learning objectives, and the instructional strategies employed can influence the effectiveness of multimedia pedagogy (Hawkridge, 2003).

In conclusion, multimedia pedagogy has emerged as a valuable approach in education, offering opportunities to enhance student engagement, cognitive processes, and learning outcomes. The integration of multimedia tools in instructional design can provide students with interactive and engaging learning experiences, facilitating the processing and retention of information. Moreover, multimedia has shown promise in patient education and self-care, supporting individuals in managing chronic conditions and improving their quality of life. However, further research is needed to explore the optimal use of multimedia in different educational contexts and to identify best practices for effective implementation. By leveraging the strengths of multimedia and considering its pedagogical considerations, educators can harness the potential of multimedia as a powerful tool for teaching and learning.

Literary Comprehension

Literary comprehension is a crucial aspect of reading that involves understanding and interpreting literary texts. Several studies have explored different factors that contribute to literary comprehension and strategies to improve it.

One study by Westwood (2012) focuses on assisting children with learning difficulties in reading comprehension. The article discusses the importance of understanding the reading process and the psychological aspects involved in comprehension. It emphasizes the need for targeted interventions to support children with difficulties in literary comprehension.

Vocabulary instruction is another factor that has been found to impact passage-level comprehension of literary texts. Elleman et al. (2009) conducted a meta-analysis to examine the relationship between vocabulary instruction and comprehension. The study suggests that vocabulary plays a significant role in comprehension, and targeted vocabulary instruction can improve passage-level comprehension in school-age children.

Kassem (2022) conducted a study on developing English majors' comprehension of literary texts using Literature Circles 2.0. The study found that this approach was effective in promoting students' comprehension of literary texts. The students showed significant improvement in processing, comprehending, and extracting the meaning of literary texts.

Gopal & Singh (2020) investigated the reading patterns of students in understanding literary texts and their impact on comprehension. The study used a qualitative research method to collect data and found that students' reading patterns influenced their comprehension of literary texts.

Thohiriyah et al. (2021) highlight the importance of the reading comprehension process as an initial step before appreciating literary texts. The study emphasizes the need for a reader-centered approach to investigate the literary reading performance profile of students from non-literature study programs.

In the context of Chinese literary works, Pan et al. (2020) proposes the use of tools to support readers' comprehension by presenting the most important information. The study suggests that identifying key people in literary works can enhance readers' understanding of complex texts.

McKeown et al. (2009) discuss the need to rethink reading comprehension instruction. The study compares instruction for strategies and content approaches and emphasizes the limited ability of many students to comprehend texts. It highlights the importance of effective instructional approaches to improve comprehension skills.

Sabbah (2023) conducted a longitudinal survey to investigate the effect of integrating a computer-based technique on college learners' reading comprehension skills in literary texts. The study explores the use of computer-test taxonomies technique to trace foreign language development in reading comprehension.

Metacognitive strategies have also been found to improve reading comprehension skills. Çer & Şahin (2016) examined the effect of metacognitive strategy in improving reading comprehension skills through children's literature of literary quality. The study highlights the positive impact of metacognitive strategies on comprehension.

Valerozo & Aggabao (2020) focused on the learning process, reading strategies, and comprehension in culture-based texts. The study aimed to determine the learning process and reading strategies employed by grade 8 students in identifying their comprehension level when reading culture-based literary texts.

In conclusion, the literature on literary comprehension highlights various factors that influence comprehension, including vocabulary, reading patterns, metacognitive strategies, and instructional approaches. These studies provide valuable insights into understanding and improving literary comprehension skills.

Several studies have explored the effects of multimedia on students' literary comprehension. Takács et al., (2014) conducted a meta-analysis comparing the effects of multimedia stories to traditional storybook reading with an adult. The findings suggested that multimedia stories can have positive effects on young children's comprehension and word learning. Similarly, reviewed the effects of digitized presentations of narratives, including multimedia elements, on children's emergent literacy. They found that multimedia can provide affordances for enhancing literacy skills (Bus et al., 2015).

Verhallen et al. (2006) investigated the promise of multimedia stories for kindergarten children at risk. They found that repeated exposure to the same story stimulates children to notice more details, gain a deeper understanding of the story line, and leads to

more word learning (Verhallen et al., 2006). This highlights the potential of multimedia stories to support language development and comprehension in young children.

Chun & Plass (1996) states that studies on multimedia pedagogy and literary comprehension have shown that the use of multimedia annotations can have a positive impact on vocabulary acquisition. Additionally, multimedia learning has been found to be effective in enhancing reading comprehension among students, including indigenous pupils (Samat & Aziz, 2020). The preference for multimedia gloss presentation has also been explored, with findings suggesting its effectiveness in improving EFL vocabulary learning and reading comprehension (Wang & Lee, 2021). Furthermore, the use of multimedia in the teaching and learning process has been found to be important in improving students' achievements, understanding, and performances in language pedagogy (Faridah et al., 2020).

The effects of multimedia on reading comprehension have been examined in various contexts, including the use of CALL glossing, which combines textual and pictorial glosses to enhance L2 reading comprehension (Taylor, 2020). Multimedia applications have also been developed to assist students with imagery deficit in visualizing reading comprehension (Li, 2017).

While some studies have focused on incidental vocabulary learning with multimedia after reading activities, there is a need to explore the effectiveness of multimedia in intentional vocabulary learning leading to successful reading (Sato et al., 2013). The effect of different types of annotation, such as text and picture annotation, on incidental vocabulary retention in a multimedia reading setting has also been investigated (Yoshii & Flaitz, 2019).

Overall, these studies highlight the contributions of multimedia glosses to reading comprehension and vocabulary acquisition (Shalmani & Sabet, 2010). It is recommended that English departments at universities incorporate multimedia applications into their teaching process to enhance students' reading comprehension and vocabulary learning (Bataineh, 2014).

METHODOLOGY

Research Design

This study employed a quasi-experimental approach which is valuable in studying the effect of multimedia pedagogy on students' literary comprehension. Quasi-experimental research allows for the comparison of groups that are not randomly assigned, which is particularly useful in educational settings where random assignment may not be feasible (Wati & Yanto, 2022).

Research Respondents

The participants of this study are the Grade 8 Quezon students of Mindanao State University – Buug Campus. Grade 8 is divided into three sections: Quezon with 34 students, Roxas with 34 students, and Garcia with 32 students, making a total of 100 students in the grade level. The researchers have chosen Grade 8 Quezon as the study's respondents based on their preference. They believed that Grade 8 Quezon participants can offer the most valuable information to fulfill the study's objectives. Firstly, Grade 8 represents a critical juncture in a student's educational journey, in which their cognitive understanding undergoes a significant development. Additionally, focusing on this grade level allows for a comprehensive understanding of how the application of a multimedia approach, as an innovative teaching method, can impact the learners' literary comprehension during a crucial developmental period. The data collection will be conducted with thirty-four (34) students currently enrolled in S.Y 2023-2024, who will be divided into two groups; the control group and the experimental group. There will be 34 research respondents aged from 12 to 15. The students are divided into two groups namely, the control group and the experimental group. The students were divided based on their grades from the second quarter in English and was run using the Mann-Whitney test to see if there was any significant difference between the division of students, and the results indicated in the Appendix G prove that there is no significant difference between the two groups.

Experimental Approach. In the experimental group, instruction was delivered through multimedia means, incorporating audio-visual elements using a laptop, projector and speaker. The research team has chosen 17 of the Grade 8 Quezon as the experimental group for this study. Specifically, 17 students have been purposefully selected from the total of 34 students (comprising 13 boys and 21 girls) based on their performance in the second quarter in English.

Traditional Approach. In this group, instruction was conducted within a traditional classroom setting. Although learning management systems and educational content are accessible to this group, multimedia elements will not be incorporated. For the research, Grade 8 Quezon has been designated as the control group, and a deliberate selection of 17 students out of the total 34 (comprising 13 boys and 21 girls) was made based on their performance in the second quarter in English.

Sampling Procedure

The researchers have employed purposive sampling as it enables the selection of respondents from the same groups intentionally. This approach allows the researchers to choose the sample based on the study's specific goals, which aimed to investigate how multimedia pedagogy is used and how it affects the literary comprehension of the learners. Consequently, a cohort of Grade 8 Quezon students were chosen to meet the study's objectives.

Data Gathering Procedure

To begin, the researchers sought approval from the College of Education's dean to initiate the study. Subsequently, the researchers then obtained permission from the Principal of the Laboratory High School at Mindanao State University to begin the study to the Grade 8 Quezon students. Additionally, the researchers have secured consent from the students' advisors. The research approach employed was a quasi-experimental approach, which helped understand the effect of conventional teaching methods to students' literary comprehension and its difference with the multimedia approach. Furthermore, the researchers provided a parental consent form, affording guardians or parents the opportunity to familiarize themselves with the study, pose questions, and decide whether to permit or decline their child's participation. Before the actual data gathering, the researchers first implemented a pilot testing from

the Grade 8 Roxas students to validate the modified research instrument which is a literary comprehension test.

Research Instrument

This study employed two different techniques to accommodate the two groups. One for the control group and one for the experimental group. Afterwards, the researchers provided a set of comprehensive questions about the stories presented in the class. These stories are namely: The Aged Mother by Matsuo Basho, The Bible story of King Solomon’s Famous Judgment, and The Father by Bjornstjerne Bjornson. The students then took a pre-test in the beginning of the experiment and a post-test at the end of the experiment. The resources varied with The Aged Mother and The Father gathered from the website, AmericanLiterature.com and was discussed using a powerpoint and audio presentation whereas, the Bible story, King Solomon’s Famous Judgment was from a YouTube video. Before the researchers began the discussion, the students from the two groups were presented with the same pre-test questions. During the discussion, the control group was taught using traditional method which involves the use of whiteboard, markers, and oral discussions, while the experimental group was taught with the enhancement of multimedia tools such as photos and videos, slide decks, and a projector. After the discussion, the respective groups were then tasked to take the same post-test questions. The pre-test and post-test questions were similar; not the same but parallel questions that allowed the researchers to gauge the significant difference between the two groups. The experiment was conducted in three weeks, which was enough time to determine the outcome of the pre-test, and post-test results of the study. The reliability and validity of the comprehension questions have been checked.

Statistical Tool

To determine if there is significant effectiveness and differences in integrating multimedia pedagogy and in the traditional learning approach of the students, the researchers used a t-test to compare the means of the two groups. The t-test was used to determine if there is a significant difference between the traditional teaching or control group and the integration of multimedia pedagogy or the experimental group. The formula of the following t-test is:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\left(s^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right) \right)}}$$

Where: T-test value

\bar{x}_1 and \bar{x}_2 = means of two groups being compared.

s^2 = standard deviation of the differences of the paired data values.

N_1 and N_2 = are numbers of observations in each of the groups.

Data Analysis

This research project employed a quasi-experimental approach which was utilized to analyze and compare two groups. Unlike traditional experimental designs, this approach doesn't involve random assignment of participants to groups but still allows for the investigation of differences between these groups.

Descriptive Statistics. The researchers employed descriptive statistics to examine the English test results of students in the pre-test and post-test for both the control and experimental groups. This includes computing measures of central tendency such as the mean, median, and mode, as well as measures of variability like standard deviation and range.

Inferential Statistics. Inferential statistics was utilized to address research questions 3, 4, and 5. This involves comparing the pre-test and post-test scores between the control and experimental groups and assessing post-test scores between these groups. To determine the presence of significant differences, t-tests were conducted, with a predefined significance level of 0.05.

3.9.3 Quasi-Experimental Analysis: The researchers have adopted a quasi-experimental approach to assess the quantitative data collected from participants. The data was then transcribed and subjected to thematic analysis, aimed at identifying emerging patterns, themes, and categories within the dataset. This holistic data analysis provided valuable insights into the effectiveness of implementing multimedia tools in enhancing the literary comprehension of the Grade 8 Quezon students.

RESULTS AND DISCUSSION

Respondent’s evaluation of the study variables is hereunder presented in tabular form and subsequently discussed and analyzed textually consistent with the problems posed in this study.

1. What is the pre-test literary comprehension of the Grade 8 students in the:
 - a) Control Group (Traditional)

Table 1.1
Pre-test Literary Comprehension Score of the Control Group

Interval	Descriptive Interpretation	Frequency	% of Total
0-15	Very Low	0	0.00
16-30	Low	0	0.00
31-45	Average	5	29.41
46-60	High	12	70.59
61-75	Very High	0	0.00
Total		17	100
Weighted Mean		49.47	
Remark		High	

The table shows that the literary comprehension of the Grade 8 students in the pre-test from the Control Group is high. Some students (29.41%) from the Control Group scored between 31-45 which is considered average literary comprehension, while the majority of students (70.59%) scored between 46-60, which is considered high, respectively. The weighted mean of the control group is 49.47, which is regarded as “high” literary comprehension. This means that the students from the Control Group have a high level of understanding of the stories that were presented during the discussions.

b.) Experimental Group (Multimedia Approach)

Table 1.2
Pre-test Literary Comprehension Score of the Experimental Group

Interval	Descriptive Interpretation	Frequency	% of Total
0-15	Very Low	0	0.00
16-30	Low	0	0.00
31-45	Average	2	11.76
46-60	High	7	41.18
61-75	Very High	8	47.06
Total		17	100
Weighted Mean		57.71	
Remark		High	

The table shows that the literary comprehension of the Grade 8 students in the pre-test from the Experimental Group is high. Some students from the Experimental Group (11.76%) scored between 31-45 which is considered average literary comprehension, while some of the remaining students (41.18%) scored between 46-60, which is considered high literary comprehension. The rest of the students (47.06%) scored between 61-75, which is considered very high. The weighted mean of the control group is 57.71, which is regarded as “high” literary comprehension. This means that the students have a high level of understanding of the stories that were presented and discussed during the discussion.

2. What is the post-test literary comprehension of the Grade 8 students in the:
 - a) Control Group (Traditional)

Table 2.1
Post-test Literary Comprehension Score of the Control Group

Interval	Descriptive Interpretation	Frequency	% of Total
0-15	Very Low	0	0.00
16-30	Low	0	0.00
31-45	Average	3	17.65
46-60	High	9	52.94
61-75	Very High	5	29.41

Total	17	100
Weighted Mean	54.88	
Remark	High	

The table shows that the literary comprehension of the Grade 8 students in the post-test from the Control Group is high. Around half of the students from the Control Group (52.94%) scored between 41-60 which is considered high literary comprehension, while the some of the students (29.41%) scored between 61-75, which is considered very high literary comprehension. The remaining students (17.65%) scored between 31-45, which is considered average. The weighted mean of the control group is 54.88, which is also regarded as high literary comprehension. High literary comprehension represents a high level of understanding where readers can fully engage with and appreciate the complexities of a literary work (Rawson et al., 2000).

b) Experimental Group (Multimedia Approach)

Table 2.2
Post-test Literary Comprehension Score of the Experimental Group

Interval	Descriptive Interpretation	Frequency	% of Total
0-15	Very Low	0	0.00
16-30	Low	0	0.00
31-45	Average	1	5.88
46-60	High	0	0.00
61-75	Very High	16	94.1
Total		17	100
Weighted Mean			67.18
Remark			Very High

The table shows that the literary comprehension of the Grade 8 students in the post-test from the Experimental Group is very high. Most students from the Experimental Group (94.1%) scored between 61-75 which is considered very high literary comprehension. The remaining student (5.88%) scored between 31-45, which is considered average literary comprehension. No student scored between 0-30, which is considered very low, and 46-60, which is considered high. The weighted mean of the control group is 67.18, which is also regarded as very high literary comprehension. This means that the integration of multimedia pedagogy has a significant impact on the literary comprehension of the students.

3.) Is there a significant difference between the pre-test performances of the experimental and control group?

Table 3.1
Testing of Differences on the Respondents' Pre-test Scores of the Literary Comprehension

Dependent Variable	Group						Statistic	p	Interpretation
	Control			Experimental					
	M	SD	n	M	SD	n			
Pre-test Scores	49.5	8.82	17	57.7	10.7	17	73	0.014	Significant

Legends: M=Mean; SD=Standard Deviation; n=Number of Sample; t=calculated t; p=Probability Value

The table shows the testing of differences on the respondents' pre-test scores of the literary comprehension. As indicated in the table, the results of the Mann-Whitney U Test shows that the respondents' pre-test scores significantly differ between the Control (M=49.5, SD=8.82, n=17) and Experimental (M=57.7, SD=10.7, n=17) at the .05 level of significance (Statistic=73, p=0.014).

This suggests that there is a significant difference in the pre-test performances between the experimental and control groups. The positive t-value indicates that the mean pre-test score of the experimental group was higher than the mean pre-test score of the control group. The p-value of 0.014 is less than the significance level of 0.05, indicating that there was enough evidence to reject the null hypothesis and that there was no significant difference in the pre-test performances of the two groups. The students were divided based on their English grades in the second quarter and was run using the Mann-Whitney U test and the results have proven that there is no significant difference in the English grades between the two groups.

4.) Is there a significant difference between the post-test performances of the control and experimental group?

Table 4.1
Testing of Differences on the Respondents' Post-test Scores of the Literary Comprehension

Dependent Variable	Group						Statistic	p	Interpretation
	Control			Experimental					
	M	SD	n	M	SD	n			
Post-test Scores	54.9	9.36	17	67.2	7.91	17	32	<.001	Highly Significant

Legends: M=Mean; SD=Standard Deviation; n=Number of Sample; t=calculated t; p=Probability Value

The table shows the testing of differences on the respondents' post-test scores of the literary comprehension. As indicated in the table, the results of the Mann-Whitney U Test shows that the respondents' post-test scores significantly differ between the Control (M=54.9, SD=9.36, n=17) and Experimental (M=67.2, SD=7.91, n=17) at the .05 level of significance (Statistic=32, p<.001).

The results show that there is a significant difference in the post-test performances of the experimental and control groups. The p-value of 0.001 is less than the significance level of 0.05, indicating that there was enough evidence to reject the null hypothesis that there was no significant difference in the post-test performances of the two groups. Therefore, there is a significant difference in performance between the experimental and control groups, with the experimental group showing significantly higher post-test scores compared to the control group.

The findings unravel that the experimental group has significantly higher post-test scores compared to the control group. This supports the study of Samat & Aziz (2020) who also found that multimedia learning is effective in enhancing reading comprehension among students, including indigenous pupils. Similarly, this study found that the use of multimedia elements in the teaching and learning process is important in improving students' achievements, understanding, and performances in language pedagogy (Faridah et al., 2020).

The study of Chun & Plass (1996) further states that studies on multimedia pedagogy and literary comprehension have shown that the use of multimedia annotations can have a positive impact on vocabulary acquisition, which further supports the results of this study.

Furthermore, Jean Piaget's Constructivist Learning Theory supports the findings of this study. According to the constructivist learning theory Piaget (1977), people actively construct the knowledge they have about the world by integrating new information and experiences with what they already know and believe. This theory suggests that the incorporation of multimedia components offers students a variety of engaging and participatory learning opportunities that can heighten student engagement and make it easier for them to develop more profound and meaningful interpretations of literary texts.

Table 5.
Test of Normality

Variables	Shapiro-Wilk	
	Statistic	P-value
Pre-test score	0.964	0.326
Post-test score	0.889	0.002

Table 5 shows the test of normality of the pre-test and post-test scores of literary comprehensions. As shown in the table, the distribution of the pre-test scores is normally distributed because the p-value is greater than 0.05, while the distribution of the post-test scores is not normal since the p-value is less than 0.05. Thus, non-parametric test was employed to test the significant difference of the pre-test and post-test scores.

Table 5.1

Testing of Differences on the Respondents' Pre-test and Post-test Scores of the Literary Comprehension under the Control Group

Dependent Variable	Control Group						Statistic	p	Interpretation
	Pre-test			Post-test					
	M	SD	n	M	SD	n			
Scores	49.5	8.82	17	54.9	9.36	17	121	0.006	Highly Significant

Legends: M=Mean; SD=Standard Deviation; n=Number of Sample; t=calculated t; p=Probability Value

The table shows the testing of differences on the respondents' scores of the literary comprehension under the control group. As indicated in the table, the results of the Wilconxon Test shows that the respondents' scores significantly differs between Pre-test (M=49.5, SD=8.82, n=17) and Post-test (M=54.9, SD=9.36, n=17) at the .05 level of significance (Statistic=121, p=.006).

The t-test result shows that there is a significant difference between the pre-test and post-test performance of the control group. It means that the p-value of 0.006 is lesser than the significance level of 0.05, indicating that there was enough evidence to reject the null hypothesis.

The findings of the present study reveals that the use of multimedia such as videos, images, and audio-visual presentations can effectively enhance students' literary comprehension. This can be related to the literature reviewed by Hawkrige (2003) and Mayer's (2005) Cognitive Theory of Multimedia Learning.

According to Hawkrige (2003), the use of multimedia tools, such as videos, images, and interactive elements, has been found to have a positive impact on student engagement, learning outcomes, and the overall educational experience. The implementation of multimedia learning can significantly improve students' literary comprehension, which is also in line with Mayer's (2005) Cognitive Theory of Multimedia Learning.

This theory emphasizes the importance of how different multimedia elements, like character visuals or audio narration of passages, affect students' cognitive processes. According to the theory, multimedia presentations can help with dual-channel processing, which is the simultaneous processing of information through the visual and auditory channels, resulting in deeper retention and comprehension.

c) Experimental Group (Multimedia Approach)

Table 5.2

Testing of Differences on the Respondents' Pre-test and Post-test Scores of the Literary Comprehension under the Experimental Group

Dependent Variable	Experimental Group						Statistic	p	Interpretation
	Pre-test			Post-test					
	M	SD	n	M	SD	n			
Scores	57.7	10.70	17	67.2	7.91	17	105	0.001	Highly Significant

Legends: M=Mean; SD=Standard Deviation; n=Number of Sample; t=calculated t; p=Probability Value

The table shows the testing of differences on the respondents' scores of the literary comprehension under the experimental group. As indicated in the table, the results of the Wilconxon Test shows that the respondents' scores significantly differ between Pre-test (M=57.7, SD=10.70, n=17) and Post-test (M=67.2, SD=7.91, n=17) at the .05 level of significance (Statistic=105, p=.001).

The t-test result shows that there is a significant difference between the pre-test and post-test performance of the experimental group. It means that the p-value of 0.001 is lesser than the significance level of 0.05, indicating that there was enough evidence to reject the null hypothesis.

The results of the study, which indicated a significant difference in the performance of the experimental group between the pre-test and the post-test, showed that multimedia intervention was effective. These findings strengthen the similar research of Saputri et al., (2018), which explored the need for interactive multimedia based on games in the 21st-century learning environment. The findings highlighted the potential of interactive multimedia to enhance student engagement, motivation, and learning outcomes.

Furthermore, the Dual Coding Theory proposed by Paivio (1986) supports the findings of this study. It explains how presenting information through both verbal and visual formats enhances learning outcomes of the learner. By tapping into different cognitive channels, this theory allows learners to process and retain information more effectively.

CONCLUSIONS

Based on the findings of the study, the researchers conclude that the application of multimedia in teaching and learning can significantly improve the learner's understanding of literature. The researchers also conclude that the enhancement of literary comprehension can be achieved with the aid of multimedia elements such as videos, images, and audio-visual presentations. In addition, researchers conclude that multimedia pedagogy is more effective than traditional pedagogy in improving the students' literary comprehension. Lastly, integrating multimedia enables instructors to differentiate instruction for different styles of learners. This could be a video meant for learners who rely more on visual learning than hearing, or audio-enabled slideshows meant for students who learn more by hearing. Through multimedia pedagogy, it opens more learners to understanding difficult literary genres of writing.

RECOMMENDATIONS

Following the collection and thorough analysis of the data, this study seeks to offer valuable recommendations that facilitate significant and impactful transformation.

For the educators. They may utilize multimedia tools to create more immersive and informative lessons that can help enhance the students' learning experience. In the context of Mindanao State University - Laboratory Junior High School, this can significantly aid the educators craft visually rich presentations that can improve the overall teaching and learning quality of the school, its teachers and its students.

For the administrators. They may want to consider the potential benefits of integrating multimedia pedagogy in the school to support learning advancement with today's technological age. This can be achieved by providing the Laboratory Junior High School with different multimedia tools such as projectors, white screens, or smart TVs. The administrators may also update the curriculum to apply multimedia enhanced learning.

For the students. The introduction of multimedia pedagogy may allow the learners to become more interested in learning, allowing them to have a more diverse and in-depth understanding of the different topics, especially in literature. Multimedia resources such as videos, interactive presentations, and online platforms may captivate students' interest, making the learning process more enjoyable and memorable. These resources may provide opportunities for students to explore literary concepts in greater depth, access a variety of online materials, and participate in differentiated activities tailored to their learning styles and abilities.

For future researchers. The exploration of multimedia pedagogy and its long-term effects may provide a significant importance in understanding the potential impact of multimedia assisted learning, as this could provide insight into the effectiveness of digital tools when the learners are exposed to this type of pedagogy for the long-term. The researchers may also decide if they want to focus purely on objective questions, subjective questions, or a balanced mixture of both, which may require an interrater to further solidify further results.

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