Multimedia Tools on Learners' Performance in Filipino

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Abstract

In today's educational landscape, adapting teaching methods to the digital age is important. While traditional approaches remain essential, they may not fully engage students in multimedia-rich environments. This study evaluates multimedia tools' effectiveness in teaching Filipino subjects to Grade 10 learners at Tikalaan National High School for School Year 2023-2024. It examines the impact of such tools on academic performance and student attitudes by comparing pretest and posttest results between control and experimental groups and its implications in teaching Filipino to Grade 10 learners. The study involves Grade 10 students divided into two groups of thirty-five (35) both the Control Group and the Experimental Group. Data collection involved the Division-Based Quarterly Assessment for both pretest and posttest evaluations to measure academic progress. Additionally, a researcher-created survey is made to assess students' attitudes towards multimedia tools. Respondents were selected through purposive sampling, focusing on characteristics relevant to the study's objectives. A quasi-experimental design was used, comparing the pretest and posttest results of both groups to determine multimedia tools' effectiveness. Statistical analyses, including T-test, ANOVA, and F-test, were used to evaluate the significance of observed differences.

The study reveals significant improvement in academic performance and a positive shift in attitudes towards multimedia tools among the experimental group. These findings suggest that multimedia tools can enhance learners' academic performance and foster greater student engagement. It underscores the importance of integrating multimedia tools into educational practices to improve teaching and learning outcomes. Recommendations include incorporating multimedia into the curriculum and providing professional development for educators to maximize these tools' effectiveness.

Keywords: academic performance; filipino; student attitudes; multimedia tools; multimedia-rich environment

I. Introduction

In the rapidly evolving field of education, technology integration is vital for addressing the needs of digital-age learners. In the Philippines, the Department of Education (DepEd) has recognized the potential of multimedia tools in enhancing teaching and learning. This commitment is evident in their encouragement for educators to explore innovative methods, including the use of multimedia. This strategy aims to create more engaging and effective learning environments, preparing students for the demands of the modern digital world.

Multimedia tools significantly enhance both teaching and learning experiences. Resources such as videos, animations, interactive simulations, and educational software offer dynamic and engaging ways for students to grasp and retain information. By catering to various learning styles—visual, auditory, and

kinesthetic—these tools simplify complex concepts and promote active learning. They also encourage student engagement and collaboration, enriching their educational journey.

For educators, multimedia resources provide innovative methods to deliver content, assess comprehension, and offer feedback, making lessons more effective and interactive. Incorporating multimedia tools not only enriches the learning environment but also helps students develop essential 21st-century skills like critical thinking, creativity, and digital literacy. The Department of Education's proactive steps in integrating Information and Communications Technology (ICT) into its framework reflect its dedication to enhancing these competencies through the K to 12 Curriculum and digital rise initiatives.

The use of multimedia tools in teaching the Filipino subject at Tikalaan National High School exemplifies the benefits of such integration. This approach addresses the challenge of engaging Grade 10 students in a core subject that is crucial for preserving cultural and linguistic heritage. Research highlights the positive impact of multimedia on student engagement and performance, showing significant improvements in retention, attention, and learning outcomes. This study aims to assess the effectiveness of multimedia tools in teaching Filipino, providing insights and recommendations to enhance educational practices and policies, ultimately striving to elevate the quality of education and meet the evolving needs of a technologically advanced society.

II. Methodology

This study employed a quasi-experimental research design to examine the impact of multimedia tools on learning outcomes and attitudes towards the Filipino subject among Grade 10 students at Tikalaan National High School in Bukidnon. The research divided participants into two distinct groups: an experimental group that received instruction enhanced with multimedia tools such as PowerPoint presentations, video lessons, and interactive games, and a control group that continued with traditional teaching methods. Prior to the intervention, both groups underwent a pretest using Division-Based Quarterly Assessments to establish baseline academic performance and attitudes. Following a twelve-week intervention period, which began in November and concluded in March, posttests were administered to measure the effects of the multimedia intervention.

The study was conducted within the premises of Tikalaan National High School, chosen for its suitability in investigating multimedia tools' efficacy in Filipino subject instruction. Two sections of Grade 10 students were purposively sampled to ensure a representative sample size, with 70 students in total participating. The experimental group comprised 35 students exposed to multimedia-based instruction, while the control group, also consisting of 35 students, followed conventional teaching methods. This sampling strategy aimed to minimize bias and facilitate a comprehensive comparison between instructional approaches, thereby providing insights into the potential benefits of multimedia tools in educational settings.

Data collection adhered to rigorous ethical standards, beginning with approvals from relevant authorities and obtaining parental consent for student participation. The research procedure involved initial assessments, an orientation session for participants, and ongoing data collection through surveys and academic assessments. Both quantitative data from pretests and posttests and qualitative insights from attitude surveys were systematically analyzed. Descriptive statistics were used to summarize data trends, while inferential statistics such as t-tests and ANOVA were employed to assess significant differences between the experimental and control groups' academic performance and attitudes.

Throughout the study, the validity and reliability of research instruments were upheld through a meticulous validation process involving expert input and established assessment tools. Ethical considerations were paramount, ensuring participant confidentiality, voluntary participation, and respect for their rights. By employing this methodological approach, the study aimed to contribute empirical evidence on the

effectiveness of multimedia tools in enhancing learning outcomes and shaping student attitudes towards the Filipino subject, thereby informing future educational practices and research endeavors.

III. Results and Discussion

Problem 1: How effective is multimedia tools in terms of the academic performance and attitude of the pretest and posttest on the control and experimental group?

Table 1. Distribution of Respondents in terms of their Academic Performance in the Pretest

Group	Average	Equivalent Rating	Description
Control	16.6	33.2%	Fair
Experimental	17.6	35.2%	Fair

Legend: 100-82%: Outstanding, 81-62%: VS, 61-42%: Satisfactory, 41-22%: Fair, 21-0%: Poor

Table 1 provides an overview of the respondents' performance in the pretest of the two groups: In the control group, the average score obtained by the respondents is 16.6, which reveals an equivalent rating of 33.2, described as Fair. This means that the students are still at the Developing level. This suggests that the students in the control group had a moderate understanding of the material covered in the pretest but were still in the process of developing their knowledge and skills.

On the other hand, the experimental group obtained an average score of 17.6, corresponding to an equivalent rating of 35.2% described as Fair. This means that these students have a similar level of the control group which is also at the Developing level. However, the slight increase in the average score compared to the control group suggests that the students in the experimental group performed marginally better on the pretest.

The similarity in performance between the two groups indicates that, prior to any intervention such as the introduction of multimedia tools, both groups had comparable academic standings. This baseline equivalence is essential because it ensures that any observed changes in future performance can be confidently attributed to the intervention rather than pre-existing differences. Essentially, the data confirms that the two groups started on relatively equal footing, which is crucial for the validity of the experiment.

To fully understand these findings, the study's context needs to be considered. The pretest phase provides a critical baseline, allowing researchers to measure students' initial proficiency levels before any interventions. By comparing the academic performance of both groups during this phase, researchers can better determine how effective the intervention is in improving learning outcomes. Given that the experimental group had not yet been exposed to multimedia tools during the pretest phase, the similarity in academic performance between the two groups suggests that factors other than multimedia tools may have influenced students' initial proficiency levels. These factors could include individual learning styles, prior knowledge, instructional methods, and classroom dynamics.

Insights gleaned from this dataset hint at a fundamental equality in academic achievement between the control and experimental groups prior to the integration of multimedia tools. This equilibrium holds significance, suggesting that any observed differences post-intervention can be more confidently attributed to the influence of multimedia tools rather than pre-existing contrast.

Furthermore, the slight variance in average scores between the control and experimental groups indicates a comparable baseline performance level in the pretest phase. However, this slight difference may imply potential variations in individual responses to the experimental treatment, underscoring the importance of even minor deviations in pretest performance that could significantly impact the effectiveness of interventions or treatments.

While the analysis does not definitively prove that multimedia tools significantly enhance academic performance, it also does not dismiss their potential effectiveness. Rather, it underscores the necessity of refining our utilization of these tools and overcoming any barriers that may hinder their efficacy. For instance, Sanders' study (2019) emphasizes the crucial role of pretests in assessing the impact of educational interventions on academic achievement. Pretests serve as a benchmark, offering insights into a student's initial academic standing before any intervention begins. This study argues that by examining pretest data, researchers gain a clearer understanding of the intervention's actual contribution to student progress. This method allows for a more accurate assessment of how much students' academic performance improves because of specific teaching methods or programs. It enables researchers to attribute observed improvements in student outcomes directly to the interventions themselves rather than to unrelated factors.

In summary, while multimedia tools' transformative impact on academic performance remains inconclusive, studies like Sanders' highlight the critical role of pretests in evaluating educational interventions. This approach not only enhances the importance of academic research but also ensures that interventions are assessed fairly and accurately for their true impact on student learning and achievement.

Table 2. Distribution of Respondents in terms of their Performance in the Posttest

Group	Average	Equivalent Rating	Description
Control	36.7	73.4%	Very Satisfactory
Experimental	44.2	88.4%	Outstanding

Legend: 100-82%: Outstanding, 81-62%: VS, 61-42%: Satisfactory, 41-22%: Fair, 21-0%: Poor

Table 2 presents the distribution of respondents based on their performance in the posttest, categorized by group (control and experimental). In the control group, the average score on the posttest is 36.7, which equates to a rating of 73.4% described as Very Satisfactory. This indicates commendable work by the students. This outcome indicates a proficient level of comprehension and performance; the noticeable improvement in academic performance from the initial to the final test within this group shows how effective the assessment process is in improving learning outcomes. This progress indicates a move from a Developing to a Proficient level, showing significant improvements in both learning and skill development.

On the other hand, the experimental group achieved an average posttest score of 44.2, showing a rating of 88.4%, described as Outstanding. This remarkable increase in scores, exceeding both the control group and their pretest results, underscores the effectiveness of the intervention, likely employing multimedia tools, in significantly improving learning outcomes. The significant shift from a Developing to an Advanced level within the experimental group underscores substantial progress directly attributable to the intervention's efficacy.

The marked difference in performance between the experimental and control groups truly underscores the effectiveness of the intervention. It's really evident that the integration of multimedia tools produced substantial benefits for the experimental group, especially when comparing their academic achievements not only with those of the control group but also with their own pretest results. This strongly suggests that the intervention made a big difference in boosting learning outcomes.

Further, seeing such a noticeable improvement in the experimental group's performance really backs up the idea that using multimedia tools can have a positive impact on academic success. And the solid data the researcher obtained from the posttest results confirms the initial belief in the effectiveness of the intervention.

The significant difference in posttest outcomes between the experimental and control groups underscores the efficacy of the intervention, which involves integrating multimedia tools into teaching methodologies. This emphasizes how innovative teaching approaches can substantially enhance learning outcomes and stresses the importance of keeping abreast of technological advancements in education to empower students in a dynamic environment.

Moreover, the outstanding performance of the experimental group underscores the effectiveness of the specific teaching methodologies, particularly the deliberation of the utilization of multimedia tools, in enhancing the engagement and comprehension among students. This revelation offers educators valuable insights into incorporating technology into their instructional practices to enrich learning experiences and enhance student achievement. It underscores the significance of continual exploration and experimentation to identify and implement optimal strategies within educational contexts.

A study by Adil Imroz (2023) explores the influence of multimedia learning tools on education, underscoring their capacity to enhance the learning experience through increased interaction and innovative teaching approaches. The research emphasizes that these technologies not only boost student engagement but also cater to diverse learning preferences, potentially resulting in improved academic performance.

By incorporating a variety of media such as videos, animations, and simulations, educators can establish dynamic learning settings that promote active involvement and deeper understanding among students. Imroz suggests that leveraging multimedia tools strategically holds promise for enhancing teaching efficacy and achieving better educational outcomes in contemporary educational settings.

In summary, the post test results offer strong evidence supporting the effectiveness of multimedia tools in enhancing academic performance. The significant gap in scores between the control and experimental groups emphasizes the deep impact of technology-enriched learning settings. These discoveries hold crucial implications for educational strategies and implementation, stressing the importance of ongoing investment in technology integration and educator training to foster student achievement.

Table 3. Distribution of Respondents in terms of their Attitude towards Multimedia Tools of the Experimental Group in the Pretest

Indicators	Weighted Mean	SD	Description
Multimedia tools make learning more interesting and engaging.	2.46	.77	Agree
I find it easier to understand complex concepts when they are explained using multimedia tools.	2.37	.90	Disagree
I feel more motivated to learn when multimedia tools are used in the classrooms.	2.40	.69	Disagree
I believe that multimedia tools enhance my learning experience.	2.54	.50	Agree
I prefer classes that use multimedia tools over those that do not.	2.43	.77	Disagree
I think that the use of multimedia tools helps improve my academic performance.	2.43	.80	Disagree
I feel that multimedia tools make classes more interactive.	2.49	.45	Agree
I would recommend the use of multimedia tools to other learners.	2.43	.84	Disagree
I am confident with the use of multimedia tools in my learning.	2.34	.95	Disagree
I believe that multimedia tools are essential for modern learning.	2.55	.64	Agree
Overall	**2.44**	**.73**	**Disagree**

Legend: 4.0-3.25: Strongly Agree, 3.24-2.45: Agree, 2.44-1.75: Disagree, 1.74-1.00: Strongly Disagree

Table 3 presents the comprehensive examination of the attitudes of participants towards multimedia tools within an educational framework, with a specific focus on the experimental group during the pretest phase.

With an overall mean of **2.44 (SD=.73)** described as **Disagree**, means that the respondents within the experimental group exhibited a somewhat negative disposition towards multimedia tools in their learning environment during the pretest phase. The standard deviation indicates a moderate level of variability in their opinions. This suggests that while there is a general trend or central tendency in their attitudes as reflected by

the overall mean of 2.44, which leans towards Disagree, the responses are not tightly clustered around this mean. Instead, there is a noticeable spread, meaning that a significant number of respondents have opinions that differ from the average, either more positively or negatively. This variability could be due to a range of factors, such as individual differences in learning styles, familiarity with multimedia tools, or previous experiences with these tools in educational settings.

The data highlights specific areas of concern such as difficulty in understanding complex concepts, lack of motivation, perceived impact on academic performance, and confidence in using multimedia tools. Addressing these concerns through tailored interventions could shift perceptions positively. Moreover, the overall negative attitude underscores the necessity for continuous assessment and feedback mechanisms to ensure multimedia tools align with educational needs and preferences.

Despite the overall negative sentiment, the positive responses to certain indicators suggest potential for improvement. Indicators such as making learning more interesting, enhancing the learning experience, and increasing class interactivity received favorable responses, indicating that building on these aspects could enhance overall perceptions. The variation in responses, as indicated by higher standard deviations, points to differing levels of acceptance among students, emphasizing the need for individualized approaches to integrating multimedia tools.

Furthermore, acknowledging the essential role of multimedia tools in education, even amidst uncertainty, lays a crucial foundation for advocating their benefits. By showcasing successful applications and highlighting their significance in the learning environments, perceptions can be significantly influenced. Recent academic research strongly supports this perspective. A study published by ISRES publishing (2023) discussed the impact of web-based instruction using multimedia tools on students' attitudes. It highlights that while there are initial doubts and negative attitudes towards multimedia tools, positive responses can be achieved through proper integration and training. The study also underscores the importance of continuous assessment and tailored interventions to improve perceptions and effectiveness.

The data analysis conducted within the experimental group indicates that the indicator **I believe that multimedia tools are essential for modern learning** obtained the highest mean score of **2.55 (SD=.64),** described as **Agree**. This suggests a strong consensus among respondents regarding the significance of multimedia tools within the educational system. It highlights the widespread recognition among students of the important role these tools play in facilitating effective learning experiences in today's digital era.

This recognition carries significant implications for education. Firstly, it emphasizes the importance of educators embracing multimedia tools to meet students' expectations. By integrating multimedia resources into teaching, educators can enhance engagement and comprehension. Secondly, it underscores the necessity of fostering digital literacy skills among students. Educators should assist students in effectively navigating and evaluating multimedia content for learning purposes.

Moreover, the insights obtained from the high mean value suggest a growing demand from students for the integration of multimedia tools into their learning experiences. This underscores the need for responsive curriculum design and instructional practices that leverage technology to create dynamic and interactive learning environments. Additionally, the strong agreement with the statement indicates an increasing acceptance and expectation among students for technology-enhanced learning approaches. This trend aligns with broader educational shifts towards digital transformation and underscores the importance of ongoing research and innovation in educational technology.

Recent literature supports these insights and implications. For instance, research by Faruk et al. (2020) emphasizes the significance of multimedia technologies and applications in education as essential tools for both teaching and learning. The article highlights how multimedia tools can greatly enhance the educational experience by making learning more engaging and effective.

On the other hand, the data reveals that among the participants within the experimental group, the indicator **I am confident with the use of multimedia tools in my learning** generated the lowest mean of **2.34 (SD=.95)** described as **Disagree.** This finding suggests a lack of self-assurance or comfort among

learners when it comes to employing multimedia tools as part of their learning process. The low mean observed is important because confidence is crucial for students to effectively use educational technology. When students lack confidence, they might not engage fully with multimedia tools, leading to weaker learning outcomes and making it harder to integrate technology into teaching. To tackle this, educators should provide support like training sessions, user-friendly interfaces, or gradual introduction to multimedia tools.

Further, the insights gleaned from this data highlight the importance of considering learners' perceptions and attitudes toward technology integration in educational settings. By understanding and addressing factors contributing to low confidence levels, educators can create a more supportive and inclusive learning environment that empowers learners to effectively influence multimedia tools for enhanced learning experiences.

In the study on multimedia learning and self-regulated learning provides valuable insights into the factors influencing the effectiveness of multimedia materials. For instance, Tamarra Vagg et al. (2020) investigated students' confidence in using multimedia tools. It finds that while many students are comfortable with these tools, a significant portion still struggles, highlighting the need for better support and training.

In summary, examining the pretest data shows how students feel about multimedia tools in education. While the overall mean resulted to disagreement among the respondents, there are still variations in opinions. Some students strongly agree that multimedia tools are important for modern learning, while others are doubtful about their effectiveness, especially for complex topics.

Table 4. Distribution of Respondents in terms of their Attitude Towards the Use of Multimedia Tools of the Experimental Group in the Posttest

Indicators	Mean	SD	Description
Multimedia tools make learning more interesting and engaging.	3.83	.38	Strongly Agree
I find it easier to understand complex concepts when they are explained using multimedia tools.	3.51	.69	Strongly Agree
I feel more motivated to learn when multimedia tools are used in the classrooms.	3.74	.44	Strongly Agree
I believe that multimedia tools enhance my learning experience.	3.49	.65	Strongly Agree
I prefer classes that use multimedia tools over those that do not.	3.66	.58	Strongly Agree
I think that the use of multimedia tools helps improve my academic performance.	3.74	.44	Strongly Agree
I feel that multimedia tools make classes more interactive.	3.60	.49	Strongly Agree
I would recommend the use of multimedia tools to other learners.	3.74	.44	Strongly Agree
I am confident with the use of multimedia tools in my learning.	3.60	.60	Strongly Agree
I believe that multimedia tools are essential for modern learning.	3.77	.48	Strongly Agree
Overall	**3.67**	**.52**	**Strongly Agree**

Legend: 4.0-3.25: Strongly Agree, 3.24-2.45: Agree, 2.44-1.75: Disagree, 1.74-1.00: Strongly Disagree

Table 4 illustrates the distribution of attitudes among participants from the experimental group regarding the utilization of multimedia tools in their posttest evaluation with an overall mean of **3.67 (SD=.52)** described as **Strongly Agree** reflecting a highly favorable perception of multimedia tools among participants.

The standard deviation for the overall attitude of respondents towards multimedia tools in the

posttest indicates a relatively low level of variability in their opinions. This suggests that the respondents' attitudes are more consistently aligned around the mean value of 3.67, which corresponds to Strongly Agree. The low SD implies that most respondents had similar positive experiences and perceptions regarding the use of multimedia tools after the intervention. This consistency signifies that the implementation of multimedia tools had a broadly positive and uniform impact on the respondents, leading to a stronger consensus in their attitudes compared to the pretest results. The reduced variability and higher overall mean demonstrate the effectiveness of multimedia tools in enhancing engagement and learning outcomes among the participants.

Further, the implications of the findings are significant. Firstly, the integration of multimedia tools into educational settings appears to have a substantial impact on student engagement, motivation, and learning outcomes. Educators are encouraged to integrate multimedia elements into their instructional strategies to leverage these advantages. Secondly, the positive attitudes of learners toward multimedia tools indicate a readiness to embrace technology in education, signaling a transition toward more dynamic and interactive learning environments.

These insights align with existing research on the effectiveness of multimedia tools in education. For instance, a study by Pandita and Kiran (2023) explores how technology, including multimedia tools, can enhance student engagement and satisfaction. The findings indicate that interactive and multimedia learning resources significantly contribute to improved student engagement and overall learning outcomes.

The indicator, **Multimedia tools make learning more interesting and engaging** got the highest mean of **3.83 (SD=.38),** described as **Strongly Agree**. It indicates a strong consensus among respondents regarding the positive impact of multimedia tools on boosting interest and engagement levels in learning activities. This finding holds significant implications for educators and learners, stressing the importance of incorporating multimedia tools into the learning process.

Educators recognizing the transformative potential of multimedia tools to enhance interest and engagement signifies a crucial shift in teaching methodologies. Embracing a multimedia-centered approach empowers educators to craft immersive and interactive learning environments tailored to diverse learning styles and preferences. Moreover, leveraging multimedia tools facilitates the creation of personalized learning pathways aligned with students' individual interests and motivations, thereby amplifying the effectiveness of educational experiences.

Moreover, the average score attained by students underscores a clear tendency towards learning materials incorporating multimedia elements. In today's digital era, students naturally gravitate towards educational resources integrating videos, images, and interactive content, resonating with their daily technological engagement. Integration of multimedia tools into lessons enables students to engage with the content dynamically, simplifying the comprehension of abstract concepts and fostering connections with real-world scenarios. Consequently, students enhance their comprehension and retention of the material, culminating in a profound and enduring mastery of the subject matter.

Recent research findings support the idea that using multimedia in learning can greatly increase learners' interest and involvement. A study by Ang (2017) at PHINMA COC, highlights that there is a significant effect on the performance of the respondents when cooperative learning is applied. Combining cooperative learning with multimedia tools can amplify these benefits by creating a rich, dynamic, and visually stimulating environment that captures students' attention and enhances their motivation to learn. In a cooperative setting, students working together on multimedia projects such as interactive presentations or digital storytelling does not only engage more deeply with the content but also develop essential teamwork and communication skills. Thus, integrating multimedia tools into cooperative learning fosters a more enjoyable and effective educational experience.

The findings indicate that the indicator **I believe that multimedia tools enhance my learning experience** received the lowest mean of **3.49 (SD=.65)**, described as **Strongly Agree**. This suggests an interesting variation in how respondents perceive this aspect. While the majority agreed strongly with statements praising multimedia tools for their ability to enrich learning, boost motivation, and improve

academic performance, there was a noticeable split in opinions regarding their impact on the overall learning experience.

This result implies a complex landscape wherein although most participants hold favorable views towards multimedia tools, there exists a degree of doubt or reservation regarding their holistic contribution to learning. This finding really emphasizes the need to dig deeper into students' doubts or uncertainties about how multimedia tools benefit education.

Moreover, for educators and instructional contributors, it's crucial to consider students' viewpoints and experiences when incorporating multimedia tools. By acknowledging and addressing any lingering doubts while highlighting the perks, educators can encourage a more positive perception of these tools, ultimately boosting their effectiveness in supporting student learning.

Insights from contemporary research shed light on strategies for optimizing the effectiveness of multimedia tools in facilitating the understanding of complex concepts. For example, Amir et al. (2021) explores students' perceptions of instructional multimedia tools in learning. It highlights both the positive views, and the reservations students have about the effectiveness of multimedia in enhancing their learning experience. The study indicated that the students perceived a positive response towards the instructional media used by the teacher in teaching in the classroom which are necessary in effective teaching and learning process for the students.

The discovery from this result carries a significant implication for educators and all those involved in education. The overwhelmingly favorable reception of multimedia tools among participants highlights their transformative potential in reshaping teaching and learning methodologies. Educators are urged to thoughtfully incorporate multimedia tools into their instructional strategies, thereby fostering dynamic and captivating learning environments that accommodate various learning styles and preferences. Furthermore, institutions could explore investing in professional development programs aimed at empowering educators with the requisite competencies to smoothly integrate multimedia tools into their teaching practices.

Problem 2: Is there a significant difference in the learners' academic performance in Filipino on the pretest of the control and experimental group?

Table 5. Test Statistics on the Comparison of Grade 10 Learners Academic Performance in the Pretest of the Control and Experimental Group

	N	Pretest	SD	df	p-value	Interpretation
Control	35	16.6	4.48	34	0.428	No Significant Difference
Experimental	35	17.6	5.93	34	0.391	No Significant Difference

Legend: NS= not significant at $\alpha = 0.05$, if p-value > 0.05; ** S = significant if p-value<0.05

Table 5 presents the mean pretest scores and standard deviations for both groups, along with degrees of freedom and corresponding p-values. In the control group of 35 students, the mean pretest score was **16.6 (SD=4.48)**. Conversely, the experimental group, also comprising 35 students, had a slightly higher mean pretest score of **17.6 (SD= 5.93)**. A t-test for independent samples was conducted to determine if the observed mean differences were statistically significant.

The computed p-values for both the control (**p = 0.428**) and experimental groups (**p = 0.391**) exceeded the commonly used significance level of $\alpha = 0.05$. This indicates that there is **no statistically significant difference** in academic performance on the pretest between the control and experimental groups in Filipino. Therefore, based on these findings, we fail to reject the null hypothesis, suggesting that any observed variations in pretest scores between the groups likely arose by chance rather than due to the

experimental intervention.

These results imply that initially, the two groups were comparable in their baseline academic proficiency in Filipino, which is important in educational research. This comparability ensures that subsequent differences in academic performance can be confidently attributed to the intervention rather than initial differences in knowledge or ability. The researcher can proceed with confidence knowing that the groups were well-matched at the study's outset, reinforcing the validity of future analyses regarding the intervention's impact on Filipino subject learning outcomes among Grade 10 learners.

Furthermore, the non-significant difference in pretest scores between the control and experimental groups underscores the successful random assignment of students, creating groups that were statistically similar initially. This baseline equivalence enhances the reliability of subsequent comparisons and strengthens the study's internal validity. It indicates that factors other than the experimental treatment did not significantly influence pretest scores, further supporting the causal inference drawn from the results. These insights underscore the importance of establishing baseline equivalence in educational research, allowing for more accurate assessments of intervention effectiveness and the development of impactful teaching strategies. Future studies could explore specific factors influencing educational outcomes, enriching our understanding of effective teaching practices across diverse educational settings.

Furthermore, the broader range of scores within the experimental group underscores the necessity for personalized instructional approaches to meet the diverse learning needs of students. Studies, such as the one conducted by Hulleman et.al., (2019), emphasize the significance of considering initial performance diversity in educational interventions. This emphasizes the significance of implementing personalized instructional strategies to accommodate the unique abilities and needs of each student.

Acknowledging and addressing student diversity empowers educators to establish fairer learning environments and enhance academic outcomes. Through personalized guidance and consideration of baseline performance, educational interventions can effectively boost student progress and cultivate a more inclusive educational experience.

Problem 3: Is there a significant difference in the learners' academic performance in Filipino on the posttest of the control and experimental group?

Table 6. Test Statistics on the Comparison of Grade 10 Learners' Academic Performance in the Posttest of the Control and Experimental Group

	N	Posttest	SD	df	p-value	Interpretation
Control	35	36.7	6.90	34	0.003	Significant
Experimental	35	44.2	4.71	34	0.001	Significant

Legend: NS= not significant at $\alpha = 0.05$, if p-value > 0.05; ** S = significant if p-value<0.05

Table 6 illustrates the academic performance differences among Grade 10 learners in Filipino between the control and experimental groups. The control group recorded a mean score of 36.7 (SD=6.90), whereas the experimental group attained a notably higher mean of 44.2 (SD=4.71). Statistical analysis via a t-test revealed significant differences between the groups ($p = 0.003$ for the control group and $p = 0.001$ for the experimental group), indicating that the intervention implemented in the experimental group had a significant impact on academic performance compared to the control group.

The study's findings on the academic performance of Grade 10 learners in Filipino posttests are multifaceted and significant for educational practice and policy. Firstly, the observed significant difference between the experimental and control groups underscores the potential effectiveness of targeted interventions

in improving student outcomes. This suggests that educational institutions and policymakers should consider investing in and supporting initiatives that employ evidence-based interventions to enhance learning in specific subjects.

Secondly, these findings highlight the importance of curriculum design and instructional methodologies in achieving educational goals. Educators can draw insights from the effective practices identified in the experimental group to refine teaching strategies and adapt curriculum content to better meet students' needs. This adaptive approach can contribute to more personalized and effective learning experiences, potentially improving overall academic performance across various subjects.

The result shows the significant effect of using multimedia in education is the substantial enhancement of learner engagement and attentiveness. It creates a stimulating learning environment that captures students' interest more effectively than traditional teaching methods. This increased engagement helps maintain students' attention throughout the lesson, making them more likely to absorb and retain information. Additionally, the diverse multimedia tools cater to various learning styles, enabling a more personalized and effective learning experience. As a result, students become more involved in classroom activities, leading to improved comprehension and academic performance.

These findings further underscore the critical role of curriculum design and instructional methodologies in achieving educational objectives. Educators can leverage insights from successful practices identified in the experimental group to refine teaching strategies and adjust curriculum content to better align with students' needs. This adaptive approach holds promise for fostering more personalized and effective learning experiences, potentially enhancing overall academic performance across diverse subjects.

Moreover, the study demonstrates that multimedia's integration in education significantly enhances learner engagement and attentiveness. By creating a dynamic learning environment, multimedia tools effectively capture students' interest, surpassing the efficacy of traditional teaching methods. This heightened engagement facilitates sustained attention during lessons, thereby increasing the likelihood of information absorption and retention. Additionally, the versatility of multimedia accommodates various learning styles, promoting a personalized and efficient learning experience. Consequently, students actively participate in classroom activities, which correlates with improved comprehension and academic achievement.

A study by Abdulrahaman et al. (2020) examined the impact of multimedia tools on educational practices, highlighting both the benefits and challenges of integrating multimedia in classrooms. Their research found that multimedia tools, such as videos and interactive simulations, can significantly enhance student engagement and learning outcomes by capturing and maintaining student attention, thereby facilitating a better understanding and retention of complex concepts.

In summary, the significant difference in posttest scores between the control and experimental groups underscores the potential of targeted interventions to improve students' academic performance in Filipino. This provides valuable insights for educators and policymakers, emphasizing the importance of informed decision-making in education.

Problem 4: Is there a significant effect in Multimedia tools on learners' academic performance in Filipino?

Table 7. Test Statistics on the Learners' Academic Performance on the Use of Multimedia Tools

Group	N	Academic Performance		t-test	f-test	Interpretation
		Pretest	Posttest			
Control	35	16.6	36.7	19.49	0.48	No Significant
Experimental	35	17.6	44.2	17.96	2.07	Significant

Table 7 illustrates the impact of multimedia tools on learners' academic performance, as indicated by pretest and posttest scores. In the control group of 35 participants, the average pretest score was 16.571, increasing to 36.714 in the posttest assessment. However, despite this improvement, statistical analysis revealed No Significant difference between the pretest and posttest scores (t-test = 19.49, $p > 0.05$). Conversely, the experimental group, also comprising 35 individuals, showed a notable improvement in academic performance. Their mean pretest score of 17.629 rose significantly to 44.229 in the posttest evaluation (t-test = 17.96, $p < 0.05$) which indicates Significant. Moreover, the F-test for both groups indicated significant differences in performance between the pretest and posttest scores (Control: F-test = 0.48, Experimental: F-test = 2.07), underscoring the influence of multimedia tools on learning outcomes.

These findings have important implications for educational practice. While the improvement observed in the control group suggests some effectiveness of traditional instructional methods, the lack of statistical significance highlights the limitations of relying solely on conventional teaching approaches. In contrast, the substantial enhancement seen in the experimental group emphasizes the potential of multimedia tools to positively affect learners' academic achievements. Educators are encouraged to incorporate multimedia tools into their teaching practices to enhance student engagement and comprehension.

Moreover, the study underscores the impacts of instructional modalities on learners' academic performance. While traditional methods may lead to some improvements, multimedia interventions offer a promising avenue for enhancing learning outcomes. The significant differences in posttest scores between the control and experimental groups highlights the transformative potential of multimedia tools in education. By leveraging multimedia tools, educators can create more immersive and engaging learning environments that cater to diverse learning styles and preferences. Furthermore, understanding the mechanisms driving the effectiveness of multimedia interventions can inform the development of evidence-based instructional practices and pedagogical strategies. As educational institutions adapt to meet the evolving needs of students in the digital age, the integration of multimedia technologies will be crucial for promoting academic success and fostering lifelong learning.

Utilizing intervention or multimedia tools holds significance for students due to their capacity to accommodate diverse learning styles, engage learners through interactive and practical learning experiences, promote deeper comprehension and retention of information, facilitate collaborative learning environments, and align with contemporary educational demands by offering dynamic and engaging teaching

methodologies. This integration serves to enhance academic performance by enhancing accessibility, interactivity, and effectiveness in educational settings.

In a recent research article authored by Ababa et al. (2021), found an influence of educational applications on students in their academic performance was thoroughly investigated. It revealed that incorporating multimedia materials significantly enriches interactive learning experiences. This heightened level of engagement not only captivates students more effectively but also contributes to notable advancements in their academic accomplishments. The findings emphasize how educational technology has the capacity to revolutionize conventional learning settings by promoting deeper comprehension and longer-term retention of information through dynamic and interactive educational content.

These findings are profound for educators and policymakers, emphasizing the imperative of embedding multimedia resources into teaching methodologies and curriculum frameworks. Through the utilization of multimedia tools, educators can cultivate more captivating and interactive learning environments tailored to diverse learning preferences and aptitudes, consequently fostering enhanced academic performance in Filipino language education. This underscores the necessity for educational institutions to allocate resources and facilitate professional development initiatives to facilitate the seamless integration of multimedia tools into pedagogical practices and learning modalities.

Problem 5. What are the implications to the findings of the study in teaching Filipino to Grade 10 Learners?

Implications to Filipino Teaching

The integration of multimedia tools into the Grade 10 Filipino curriculum at Tikalaan National High School presents a promising avenue for enhancing educational outcomes. This approach not only enriches traditional teaching methods but also fosters a more dynamic and engaging learning environment. By embracing multimedia resources, educators can revolutionize how students engage with and comprehend the subject matter.

One of the primary aims of this study is to explore the impact of integrating multimedia tools on academic performance in the Filipino subject for Grade 10 students. Previous research has underscored the potential of multimedia tools in bridging educational gaps and elevating student achievement levels. Through the provision of diverse interactive learning materials, educators can cater to various learning styles, thereby facilitating better understanding and retention of linguistic and cultural concepts.

Additionally, the incorporation of multimedia tools is poised to cultivate student-centered learning environments. By empowering students to independently explore and engage with multimedia resources, educators can nurture self-directed learning and critical thinking skills. Moreover, these tools facilitate collaborative learning opportunities, enabling students to participate in meaningful discussions and activities related to the Filipino subject alongside their peers and teachers.

The study's results provide a thorough understanding of the implications for education policy, especially concerning the use of multimedia tools in teaching Filipino to Grade 10 students. Firstly, the noticeable improvement in academic performance after implementing multimedia tools for the experimental groups underscores their effectiveness in enhancing learning outcomes.

Subsequently, the findings underscore the critical need for policymakers to champion initiatives that encourage widespread adoption of multimedia tools in schools. This includes investing in technology and providing educators with the necessary training to effectively integrate these tools into their teaching methods. Ensuring equitable access to multimedia resources, particularly for schools in underserved areas, should also be a priority.

The shift in perception towards multimedia tools among the experimental group from initial doubt to enthusiastic support post-intervention underscores their potential to positively impact the learning experience. Policymakers should consider supporting programs that encourage educators to explore various teaching approaches, including multimedia resources. Offering professional development opportunities to enhance teachers' digital proficiency is vital. Additionally, policies should promote a culture of innovation in teaching, encouraging educators to embrace new technologies and methods.

Additionally, the differences in academic performance between the control and experimental groups underscore the need to promptly address digital disparities and advance educational fairness. Policymakers should consider implementing actions to narrow the technology divide, particularly for students in underserved communities. This might include providing financial support for technology purchases, enhancing internet access in rural regions, and setting up community learning hubs equipped with multimedia tools.

Moreover, the study suggests implications for curriculum development, recommending the integration of multimedia tools across subjects. Policymakers could consider revising curriculum guidelines to incorporate multimedia resources into teaching and learning. Establishing standards and guidelines for effectively integrating multimedia tools into the curriculum is crucial to ensure alignment with educational objectives.

Attainment of Goals in Filipino Teaching

The incorporation of multimedia tools has shown significant potential in enhancing the achievement of educational goals in Filipino teaching, as indicated by research findings. The study underscores notable improvements in the academic performance of Grade 10 students when multimedia elements are integrated into their learning experiences. This highlights the effectiveness of utilizing multimedia resources to support academic achievement in Filipino, offering a variety of interactive materials that cater to diverse learning styles and preferences, thereby fostering deeper comprehension and retention of linguistic and cultural concepts.

Furthermore, the research indicates that multimedia tools can foster student-centered learning environments, empowering learners to take charge of their education and nurture critical thinking abilities. By facilitating self-directed exploration and collaborative learning opportunities, multimedia resources contribute to the development of independent learners' adept at applying acquired knowledge and skills in practical scenarios.

From a policy perspective, prioritizing initiatives that advocate for the integration of multimedia tools into the curriculum can bolster the achievement of educational objectives in Filipino teaching. Policymakers can further support educators by allocating resources and offering training to effectively incorporate these tools into teaching practices. Additionally, addressing digital disparities and promoting educational equity are crucial in ensuring universal access to the necessary technology and resources for student success.

Utilization of Instructional Materials

The use of instructional materials is important for enhancing the educational experience of Filipino educators, especially in Grade 10 classrooms. These resources include traditional textbooks and workbooks as well as modern digital platforms and multimedia resources, all designed to support teaching and learning effectively.

Instructional materials are valuable for self-directed study and independent learning. Through textbooks, workbooks, and online platforms, students can access supplementary resources and review materials outside the classroom, reinforcing their understanding of essential concepts and allowing them to enhance their skills at their own pace. This self-directed learning fosters students' responsibility for their education, helping them develop important skills like time management, organization, and critical thinking.

The study highlights the significant role of multimedia tools and diverse instructional materials in teaching Grade 10 Filipino subjects. Utilizing a variety of instructional materials allows for personalized learning experiences, encourages independent study, and promotes collaborative exploration, empowering students to take control of their education and succeed in an increasingly globalized and diverse society.

These findings stress the need for educators and policymakers to prioritize the integration of multimedia tools and diverse instructional materials into the Filipino curriculum, ensuring positive educational outcomes and fostering a culture of continuous learning among Grade 10 students.

Discussion

The study conducted at Tikalaan National High School aimed to provide a comprehensive assessment of the effectiveness of integrating multimedia tools into the teaching of the Filipino subject for Grade 10 students. Initial evaluations based on pretest scores revealed that both the control and experimental groups commenced with fair levels of performance, suggesting a relatively balanced understanding of the subject matter before any intervention. This initial assessment served as a crucial baseline for comparing the effectiveness of multimedia-enhanced instruction against traditional teaching methods.

However, posttest results unveiled a notable discrepancy in academic achievement between the two groups. While the control group maintained satisfactory performance levels, the experimental group, which received instruction supplemented with multimedia tools, exhibited significantly higher academic attainment. This stark difference in posttest scores underscored the impactful role of multimedia integration in enhancing student learning outcomes in Filipino. It suggests that the incorporation of multimedia tools effectively facilitated deeper comprehension, engagement, and retention of the subject matter among students, leading to substantial improvements in academic performance.

Moreover, an in-depth analysis of students' attitudes towards multimedia tools provided valuable insights into their perceptions and preferences regarding technology-enhanced learning. Before the intervention, participants in the experimental group tended to express neutral or slightly negative views regarding the use of multimedia tools in learning. However, post-intervention assessments showed a remarkable shift towards more positive attitudes. Students began to acknowledge the benefits of multimedia tools in making learning more engaging, comprehensible, and interactive. This transition in attitude suggests that exposure to multimedia-enhanced instruction not only improves academic performance but also positively influences students' perceptions and preferences, contributing to a more conducive and dynamic learning environment.

The statistical analysis conducted on both pretest and posttest scores further reinforced the efficacy of multimedia integration in enhancing academic performance. The significant differences observed between the control and experimental groups underscored the transformative potential of multimedia tools in language education. These findings highlight the importance of embracing innovative instructional strategies, such as multimedia integration, to foster student engagement, comprehension, and academic success in language subjects like Filipino.

IV. Conclusions and Recommendations

Conclusions

The study highlights the profound impact of integrating multimedia tools in teaching Filipino to Grade 10 students. Initially, both control and experimental groups showed comparable understanding during the pretest phase. However, posttest results revealed a significant difference: while the control group maintained satisfactory performance, the experimental group demonstrated outstanding academic achievement. This improvement underscores the efficacy of multimedia tools in enhancing learning outcomes.

Furthermore, students in the experimental group exhibited positive attitudes towards multimedia, recognizing their potential to enrich learning experiences and boost motivation. Statistical analysis confirmed the substantial improvement in academic performance among those exposed to multimedia tools, affirming their transformative role in modern pedagogy.

In summary, the findings underscore the critical importance of embracing multimedia tools in educational practices. Beyond improving academic performance, these tools cultivate a culture of active learning and innovation among students. As educational institutions adapt to the needs of digital-age learners, integrating multimedia tools becomes essential for fostering vibrant and inclusive learning environments. This approach not only enhances student engagement but also prepares them for success in an increasingly digital world, making multimedia integration a cornerstone of effective pedagogical strategies.

Recommendations

After conducting a comprehensive analysis at Tikalaan National High School on the integration of multimedia tools in teaching the Filipino subject to Grade 10 students, a series of recommendations have emerged to elevate educational practices. First and foremost, there should be a formal integration of multimedia tools into the Grade 10 Filipino subject curriculum.

1. Educational leaders in Bukidnon's Division can actively promote thesis findings through workshops and seminars, encouraging educators to explore and implement multimedia tools for teaching Filipino. This initiative fosters a culture of educational innovation and modernization throughout the region.

2. School principals play a crucial role in organizing professional development sessions that offer practical strategies for integrating multimedia tools into the curriculum. This enables principals to effectively support teachers in refining their teaching methodologies and enhancing student learning experiences in Filipino.

3. Teachers can engage in training workshops that demonstrate successful applications of multimedia tools in Filipino instruction. Such opportunities empower educators to embrace innovative teaching techniques, thereby improving student engagement and comprehension while adapting to advancements in education.

4. Students benefit from the integration of multimedia tools into their Filipino curriculum, which enhances engagement and promotes better learning outcomes. Encouraging teachers to solicit student feedback ensures that these tools effectively meet diverse learning needs and preferences.

In conclusion, by heeding these recommendations, Tikalaan National High School and other educational institutions can fully harness the potential of multimedia tools to enrich teaching and learning experiences for Grade 10 students. This holistic approach not only fosters improved academic achievement but also cultivates holistic student development, ultimately enhancing the educational landscape.

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