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Teachers' awareness, preferences and usage of educational tools

Nikki S. Garbosa
Capiz State University, Burias Campus, Mambusao, Capiz, Philippines
Corresponding Author e-mail: *nikki.garbosa@deped.gov.ph*

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Abstract

Aim: This study investigated teachers' awareness, preferences, and usage of educational tools in the District of Mambusao West, Schools Division of Capiz, during the School Year 2025–2026. Specifically, it aimed to determine teachers' awareness, preferences, and level of usage of educational tools and examine differences in usage across groups defined by their profile variables.

Methodology: The study employed a descriptive-comparative research design using a quantitative approach. A total of 95 elementary teachers participated in the study. Data were collected through a structured questionnaire and analyzed using descriptive statistics such as frequency count, percentage, mean, and standard deviation, while inferential statistics including the Kruskal-Wallis H-Test and Mann-Whitney U-Test were used to determine significant differences between groups.

Results: The findings revealed that teachers generally demonstrated high awareness and preference toward educational tools, while their level of usage was moderate. A statistically significant difference was found between teachers' usage of educational tools and their highest educational attainment ($H = 5.06$, $p < 0.01$), showing that teachers with higher educational qualifications tended to report higher levels of usage and more consistent application of educational tools.

Conclusion: The study concludes that educational attainment was significantly associated with differences in teachers' usage of educational tools, while age, sex, and length of service showed no significant association with usage levels.

Keywords: *educational tools, teacher awareness, teacher preferences, educational technology integration, instructional practices*

INTRODUCTION

Educational transformation in response to rapid technological advancements and changing societal needs has emerged as a central priority in basic education worldwide. Aligning learning environments with 21st-century demands has become a universal goal, as international frameworks and digital competency standards increasingly inform national education policies globally. Research has consistently shown that educational tools, both technological and non-technological, are essential in supporting instructional delivery and are associated with higher levels of student engagement. Pedagogical practices have evolved from teacher-centered instruction to dynamic, inclusive, and learner-centered environments linked to the demonstration of critical thinking, creativity, and problem-solving skills. However, global empirical studies on technology integration and digital competency frameworks point to a notable pattern: while infrastructure and resources have expanded across regions, effective and consistent utilization has remained a persistent challenge. Findings indicate that providing devices or materials does not automatically correspond with more favorable learning outcomes; observed success is closely associated with the human dimension, specifically teachers' readiness, competence, and willingness to innovate and adapt instructional strategies, as noted by Huang and Lajoie (2021). These observations suggest that while both educators and institutions acknowledge the value of digital and blended methods, traditional instructional methods often remain the common practice due to systemic constraints. Furthermore, utilization of innovative tools shows a strong association with educational background, teaching experience, and socio-economic context — teachers holding

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advanced degrees or those working in more developed regions tend to demonstrate a greater inclination toward digital integration. These insights highlight that access to resources alone is insufficient; meaningful integration varies according to how teachers perceive, choose, and adapt these tools within their professional and situational realities.

In the Philippine basic education context, national reforms aligned with global standards have been fully implemented through the Enhanced K-12 Basic Education Program, with the Department of Education (DepEd) prioritizing the provision of resources such as the DepEd Computerization Program (DCP) and standardized Self-Learning Modules to support accessible quality education (Abareta & Prudente, 2025). Regional analyses and local policy reviews indicate that structural changes and resource distribution were designed to address gaps and align instruction with international benchmarks. However, observations from school implementation show that despite widespread availability of materials, utilization differs considerably. While younger educators tend to show greater openness to digital platforms, more experienced teachers often maintain established routines, and many face challenges aligning tool usage with the goals of the Revised K-12 curriculum; indeed, local empirical evidence confirms that public school personnel's computer literacy and technology adoption show significant associations with their age and teaching tenure. Literature notes that while policy mandates call for integration, actual classroom practice correlates with hardware maintenance gaps and teachers' personal beliefs, familiarity, and preferences — factors that remain relevant to explore in localized research (Brasileño & Bidad, 2021).

Despite the extensive body of international and local studies regarding resource availability, infrastructure development, or general teacher competency, a distinct research gap remains. Previous investigations have predominantly treated awareness, preference, and usage as separate, isolated variables or have operated from the view that resource access corresponds with classroom application. Furthermore, these studies rarely examine the underlying socio-cultural or individual choices explaining why certain tools are more commonly used than others within the local Department of Education (DepEd) setting. While literature frequently documents structural implementation challenges, there is a lack of comprehensive research exploring how a basic education teacher's level of awareness relates to their daily instructional preferences, and how both dimensions are linked to patterns of tool utilization — particularly when balancing technological and non-technological resources. Thus, this study investigates the interrelationship between awareness, preference, and actual usage of educational tools among elementary teachers under the Revised K-12 curriculum. By examining these variables simultaneously within a single analytical framework, this research offers a perspective that moves beyond mere resource tracking, describing how personal perceptions and pedagogical choices are associated with classroom instructional practices, learner-centered environments, and student learning experiences.

Review of Related Literature and Studies

Educational tools are essential components of the modern teaching and learning process. These resources play a vital role in facilitating instruction and are consistently associated with higher student engagement and more favorable indicators of educational quality. There is a strong consensus that educational tools serve as critical links between theoretical concepts and practical application, corresponding with higher levels of student motivation and learning quality (Haleem et al., 2022). However, empirical research notes that while these resources are indispensable, their effective use varies according to how teachers perceive, select, and apply them; infrastructure availability alone does not ensure consistent or effective instructional delivery. Findings indicate that higher levels of awareness and competence are associated with clearer content organization, more creative lesson presentation, and sustained instructional effectiveness. This awareness also provides a foundation for pedagogical adaptability, which may support adjustments in methods to address diverse learning needs and align with modern educational trends.

Related to this, Guzman et al. (2025) explored the awareness and perception of public senior high school teachers regarding the use of educational resources, specifically Open Educational Resources (OER). Their study revealed that while most educators possess moderate to high familiarity with available tools and generally hold positive perceptions regarding their value, actual adoption and usage often coincide with concerns related to usability, preparation time, and insufficient institutional support. This observation suggests that awareness is a necessary but not sufficient condition for effective integration; rather, it tends to be accompanied by favorable attitudes and structural backing when reflected in regular practice. Furthermore, Sarra et al. (2025) noted that teachers' beliefs are closely linked to patterns of use in this process. Through text mining analysis of educators' perspectives, they found that underlying beliefs about the utility, relevance, and complexity of digital technologies show significant associations with how these tools are interpreted and utilized in daily instruction. Their findings indicate that even when tools are accessible, the teacher's internal orientation—shaped by their professional beliefs—corresponds with whether technology becomes a central or peripheral part of teaching.

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Nevertheless, contemporary literature shows that awareness and structural capacity do not always align with consistent classroom practice. Personal orientation and confidence are often associated with differences in use, with teachers tending to demonstrate higher frequency of tool utilization when the resources align closely with their established teaching styles. This observation is supported by Abareta and Prudente (2025), whose findings indicate that teaching experience, specialized training, and educational background show significant associations with these preferences, corresponding with wide variations in implementation even when operating under uniform mandates. Expanding on the relationship between exposure and usage, Zeybek (2025) found that the extent to which teachers view their mentors or colleagues as role models in technology use is significantly correlated with their own levels of technology acceptance and usage. The study noted a moderate yet significant correlation, indicating that positive modeling and professional observation correspond with patterns of acceptance and consistency in tool application. Consequently, a persistent gap remains between intended policy and actual classroom practice. While global frameworks and broad national programs—such as the Enhanced K–12 Basic Education Program—frequently prioritize equitable access and physical infrastructure, they often overlook how localized teacher attitudes and individual choices relate to observed educational outcomes. Analyzing awareness, preference, and usage as interconnected variables provides critical, data-driven insights useful for identifying training needs and designing relevant professional development programs.

Collectively, these reviewed works indicate that educational tools, teacher competence, and professional growth are closely interrelated elements of educational systems. A clear research gap remains, however: most existing studies examine these factors separately or in limited combinations, without fully exploring how awareness, preference, and usage relate to one another within the specific parameters of the Enhanced K–12 Basic Education Program. While prior research comprehensively describes what tools are physically available or what technical skills teachers possess, fewer studies investigate the internal factors associated with selection and the consistency of daily application. This study builds upon these foundational findings by integrating all three dimensions into a single, cohesive analysis. In doing so, it offers a more complete understanding of how these factors collectively associate with actual teaching practices, directly addressing the need for evidence-based strategies to support consistent implementation and educational equity in basic education.

Synthesis and Research Gap

Overall, the literature consistently notes the important role of educational tools in supporting the teaching and learning process, serving as useful connections between theoretical concepts and practical application. Research globally shows that teachers' awareness, preferences, and actual utilization of these tools are significantly associated with the characteristics of the learning environment and the scope of instructional delivery. While existing studies emphasize the relevance of these factors in relation to teaching quality, adaptability, and professional development, critical analysis reveals notable limitations in current scholarship. Most previous investigations examine awareness, preference, and usage as separate, unrelated variables, or focus predominantly on technological resources while giving less attention to non-technological tools, which remain widely used in diverse classrooms. Furthermore, available research largely presents generalized findings across different educational systems, with limited exploration of specific curriculum frameworks or local policy contexts.

Theoretical Framework

This study is anchored on three complementary theories to explain teacher awareness, preferences, and usage of educational tools. The Technology Acceptance Model (TAM) (Davis, 1989) is linked to awareness by emphasizing that teachers' knowledge and acceptance are associated with their perceptions of usefulness and ease of use, clarifying whether limited awareness corresponds to insufficient information or negative perceptions. Activity Theory (Vygotsky, 1978) is connected to preferences by framing the selection of teaching tools as a socially mediated process, showing that preferences are related to broader social contexts rather than isolated judgments. Finally, Open Systems Theory (von Bertalanffy, 1950) is associated with usage by conceptualizing schools as interactive systems of inputs, processes, and outputs, illustrating how resources, support, and organizational structures correspond with actual application. Collectively, these theories provide a holistic lens: TAM clarifies the cognitive aspects of awareness, Activity Theory situates preferences within socio-cultural contexts, and Open Systems Theory relates usage to systemic interactions.

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Conceptual Framework

The conceptual framework illustrates the observed associations among teachers' awareness, preferences, and usage of educational tools. In this study, teachers' profile, level of awareness, and personal preferences are treated as independent variables, while the actual usage of educational tools constitutes the dependent variable. This holistic view of teachers' engagement with educational tools is measured using specific indicators aligned with the statement of the problem.

Furthermore, the study aims to describe the current status of these variables and examine whether significant differences exist in teachers' usage of educational tools when respondents are grouped by profile characteristics such as age, sex, highest educational attainment, and length of service. These profile attributes are viewed as factors that may correspond with variations in the extent and manner of tool utilization. The patterns within this framework are analyzed using descriptive statistics to summarize levels of awareness, preferences, and usage, alongside inferential statistics to compare differences across groups defined by teacher profiles.

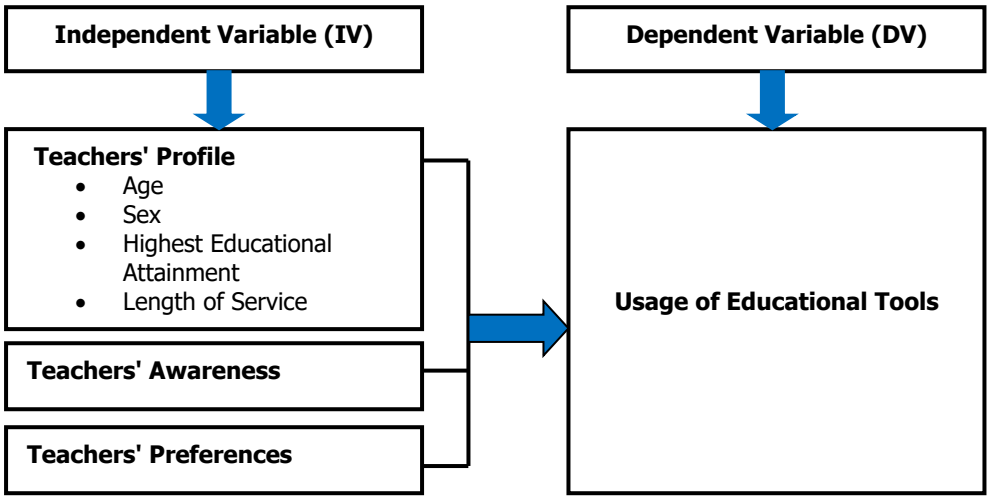

Figure 1
Schematic diagram showing the relationship among the variables of the study.

Statement of the Problem

The Enhanced K–12 Basic Education Program in the Philippines requires continuous adaptation to meet the demands of 21st-century teaching and learning. Central to this transformation is the effective integration and utilization of educational tools, both technological and non-technological, to support instructional delivery and improve learning outcomes. Although the Department of Education (DepEd) has implemented programs and initiatives to provide schools with educational resources and technological support, challenges remain in ensuring their consistent and effective classroom utilization.

Teachers differ in their awareness, preferences, and usage of educational tools due to variations in educational attainment, teaching experience, training, and professional development opportunities. These differences may influence the effectiveness of instructional practices and create inconsistencies in the integration of educational tools within classroom settings. Despite existing educational technology initiatives, limited studies have examined teachers' awareness, preferences, and usage of educational tools in the context of the Enhanced K–12 Basic Education Program, particularly in the District of Mambusao West, Schools Division of Capiz. Hence, this study was conducted to address this gap and provide insights that may contribute to instructional improvement, teacher development, and educational policy enhancement.

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Research Objectives

General Objective:

To determine the teachers' awareness, preferences, and usage of educational tools in the District of Mambusao West, Schools Division of Capiz, during the School Year 2025–2026.

Specific Objectives:

1. To determine the teachers' level of awareness of educational tools.
2. To identify the teachers' preferences in using educational tools.
3. To assess the level of teachers' usage of educational tools when grouped according to age, sex, highest educational attainment, and length of service.
4. To determine whether significant differences exist in teachers' usage of educational tools when grouped according to profile variables.

Research Questions

1. What is the level of teachers' awareness of educational tools?
2. What are the teachers' preferences in using educational tools?
3. What is the level of teachers' usage of educational tools when grouped according to:
   a. age;
   b. sex;
   c. highest educational attainment; and
   d. length of service?
4. Is there a significant difference in teachers' usage of educational tools when grouped according to profile variables?

Hypotheses

The following null hypotheses were tested at the 0.05 level of significance:

H_{o1}: There is no significant difference in teachers' usage of educational tools when grouped according to age.

H_{o2}: There is no significant difference in teachers' usage of educational tools when grouped according to sex.

H_{o3}: There is no significant difference in teachers' usage of educational tools when grouped according to highest educational attainment.

H_{o4}: There is no significant difference in teachers' usage of educational tools when grouped according to length of service.

METHODS

Research Design

The study employed a descriptive-comparative quantitative research design to describe the respondents' characteristics at a specific point in time. The descriptive component was used to present the current status of teachers' awareness, preferences, and usage of educational tools. Meanwhile, the comparative design explored whether personal and professional attributes—namely age, sex, length of service, and highest educational attainment—show associations with variations in usage levels.

It is important to clarify the scope of analysis in this study: awareness and preferences were analyzed using descriptive statistics only (frequency, percentage, mean, and standard deviation), with no inferential or comparative tests applied to these variables. Usage, however, was analyzed using both descriptive statistics and inferential statistics (Mann–Whitney U-Test and Kruskal–Wallis H-Test) to identify significant differences across groups defined by teacher profiles.

Population and Sampling

The study was conducted in fourteen (14) elementary schools located in the District of Mambusao West, Schools Division of Capiz. The target population consisted of 126 elementary teachers who were actively teaching within these schools during School Year 2025–2026. From this population, stratified random sampling was employed to select 95 respondents. This technique helped ensure that teachers from each school and grade level were

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proportionally represented in the sample. This sampling procedure was intended to allow the selected participants to provide direct insights into their awareness, preferences, and usage of educational tools relevant to the variables under investigation.

Instruments

The researcher-made questionnaire was presented to the advisory and examining committee for face validation to check the clarity, relevance, and appropriateness of the items included in the instrument. The suggestions and recommendations of the committee were carefully considered and reflected in revisions made to the questionnaire.

To assess the reliability of the instrument, pilot testing was conducted among 30 randomly selected teachers from the District of Jamindan who were not part of the actual respondents of the study. Data gathered from the pilot test were analyzed using Cronbach's alpha reliability analysis. The results showed a reliability coefficient of $\alpha = 0.89$, a value associated with good internal consistency. This finding supports the observation that the instrument is consistent and appropriate for use in the conduct of the study.

Data Collection

Prior to data collection, the researcher sought permission from the Dean of the College of Education, the Schools Division Superintendent of the Schools Division of Capiz, Public Schools District Supervisors, and the School Heads of all schools involved in the research. Once approval was granted, the purpose and procedures of the study were clearly explained to the teacher participants, and their informed consent was secured before proceeding.

The researcher-made questionnaires were then personally administered to the respondents, who were given adequate time for completion. Completed questionnaires were retrieved personally by the researcher to support full response rates and data integrity. All collected questionnaires were carefully checked for completeness and consistency before being prepared for data processing and analysis using appropriate statistical tools.

Treatment of Data

The gathered data were analyzed quantitatively using both descriptive and inferential statistics. Descriptive statistics including frequency count, percentage, mean, and standard deviation were used to summarize teachers' awareness, preferences, and usage of educational tools, as well as to present an overview of the participants' characteristics. For inferential analysis, nonparametric tests—namely the Mann–Whitney U Test and Kruskal–Wallis H Test—were employed to identify significant differences across groups defined by the teachers' profiles. These tests were selected because preliminary analyses showed that the data did not meet the assumptions of normality; hence, nonparametric procedures were considered more suitable for obtaining consistent and interpretable results. All findings were presented in tables and figures to support clear interpretation.

Ethical Considerations

This study strictly adhered to established ethical standards in educational research. Approval to conduct the study was obtained from the Dean of the College of Education, the Schools Division Superintendent of Capiz, Public Schools District Supervisors, and the School Heads of all participating institutions before any data collection commenced. Informed consent was meticulously secured from all teacher participants, and their fundamental rights to voluntary participation, confidentiality, and anonymity were rigorously upheld throughout the research process. All collected data were handled with strict confidentiality to prevent identification of individual respondents in any presentation or reporting of findings. Furthermore, all data were securely stored and used only for the purposes of this research.

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RESULTS and DISCUSSION

This section provides an overview of the respondents' profiles, specifically detailing their distribution according to age, sex, highest educational attainment, and length of service. Here, the demographic characteristics of the sampled elementary teachers from the District of Mambusao West are highlighted, offering context for their awareness, preferences, and usage of educational tools.

Table 1.
Teachers' Awareness of Educational tools as a Whole

Awareness	Frequency	Percentage
Aware	94	98.90
Not Aware	1	1.10
Total	**95**	**100.00**
M=1.01 SD=0.01 (Aware)		

Table 1 presents a high level of awareness among teachers regarding educational tools, with 98.90% classified as aware and only 1.10% unaware. The computed mean of 1.01 (SD = 0.01) shows that knowledge of available resources is consistent and widespread across all respondents. This pattern corresponds with broad access to information and orientation within the education system. This finding suggests that future initiatives may focus on supporting teachers' competence in applying these tools, as differences in usage appear to be linked to skill, preference, and available support rather than familiarity alone.

Overall, these results are consistent with the findings of Traga Philippakos and Rocconi (2025), who reported exceptionally high familiarity with instructional resources in settings with orientation programs and established institutional systems, and with Bulut (2026), who noted higher awareness levels among teachers with more training and regular exposure to such tools. The small proportion of teachers with limited awareness observed in this study aligns with reports that such gaps often coincide with individual circumstances — such as recent appointments or missed training sessions — rather than systemic limitations. Thus, the findings indicate that awareness is generally well established, and further attention may be directed toward understanding teachers' competence and confidence in using educational tools within their instructional practice.

Table 2.
Teachers' Awareness of Educational Tools

Educational Tools	Frequency	Percentage
1.Charts and Posters	95	100.00
2. Charts and Visual Aids	95	100.00
3. Flashcards	95	100.00
4. Printed Materials	95	100.00
5. PowerPoint/Google Slides	95	100.00
6. Games and Board Activities	94	98.95
7. Graphic Organizers	94	98.95
8.Youtube (instructional videos)	93	97.89
9. Blackboard/Whiteboard	93	97.89
10.Textbooks and Workbooks	93	97.89
11. Manipulatives	93	97.89
12.Learning Corners/Bulletin Boards	92	96.84
13. Microsoft Teams for Education	92	96.84
14. Zoom/Google Meet	90	94.74
15. Puppets/Storytelling Materials	90	94.74
16. Canva for Education	89	93.68
17. Google Classroom	86	90.53

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18. Flash Projector/TV Screen	85	89.47
19. Google Forms	84	88.42
20. Learning Management Systems	78	82.11
21. Quizzizz	66	69.47
22. Padlet	53	55.79
23. Kahoot	47	49.47
24. Nearpod	28	29.47
25. Mentimeter	26	27.37

Table 2 shows that teachers reported high awareness of traditional and basic educational tools, while awareness levels were lower for advanced and interactive technological tools. This pattern reflects that while teachers are familiar with conventional resources, their familiarity with modern, interactive technologies remains limited. Such a difference suggests that although awareness of foundational tools is well established, further exposure and training may be relevant, as these factors are linked to how teachers engage with advanced digital resources in the teaching-learning process.

These results are consistent with the findings of Bantillo and Ngag (2024), who noted that Filipino teachers continue to rely heavily on traditional methods even while acknowledging the value of technology-integrated approaches, and that professional development is frequently referenced in relation to digital literacy. Similarly, Jahan and Pandya (2024) observed that while traditional methods remain common in classrooms, familiarity and use of advanced technologies tend to be more prevalent among teachers with targeted training and exposure, and that many educators express lower confidence when working with interactive digital tools. The difference in awareness levels observed in this study corresponds with reports that such gaps often coincide with limited training opportunities, resource constraints, and established instructional routines. Thus, the findings indicate that while teachers' awareness of conventional resources is strong, further attention may be directed toward understanding teachers' competence and confidence in using advanced educational technologies, as these dimensions are associated with varied patterns of instructional practice and learning experiences.

Table 3.
Teachers' Preferences of Educational tools as a Whole

Preferences	Frequency	Percentage
Preferred	91	95.80
Not Preferred	4	4.10
Total	**95**	**100.00**

M= 1.01 SD= 0.10 (Preferred)

Table 3 shows a strong and consistent preference among the respondents, with a significant majority of 91 out of 95 teachers (95.80%) indicating they preferred using educational tools. Only a small percentage, or 4.10% (4 respondents), reported that they did not prefer using such tools. The computed mean of 1.01 with a standard deviation of 0.10 further supports this observation, reflecting consistent knowledge of available resources across all respondents and patterns of awareness linked to existing information-sharing mechanisms within the education system. This finding indicates that educational tools are generally well received and valued by teachers, and that their use is associated with structured lesson delivery, organized instruction, and varied learning activities.

These results are consistent with the findings of Xue et al. (2025), who noted that teachers' engagement with educational technologies shows a strong association with their perceived usefulness in instructional practice, a pattern corresponding to widespread preference for such tools. The high level of preference observed in this study aligns with reports that acceptance of educational tools is common and resistance is limited, with lower preference often linked to individual circumstances such as limited exposure or training. Thus, the findings suggest that while preference is clearly established, further attention may be directed toward understanding teachers' competence and confidence in using educational tools in their daily practice, as these dimensions are associated with different patterns of pedagogical application.

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Table 4.

Teachers' Preferences for Educational Tools

Educational Tools	Frequency	Percentage
1. Printed Materials	95	100.00
2. Charts and Posters	95	100.00
3. Graphic Organizers	94	98.95
4. Flashcards	93	97.89
5. Charts and Visual Aids	92	96.84
6. Textbooks and Workbooks	92	96.84
7. PowerPoint/Google Slides	91	95.79
8. Blackboard/Whiteboard	91	95.79
9. Learning Corners/Bulletin Boards	91	95.79
10. Manipulatives	90	94.74
11. Games and Board Activities	90	94.74
12. Puppets/Storytelling Materials	88	92.63
13. YouTube (instructional videos)	88	92.63
14. Canva for Education	82	86.32
15. Flash Projector/TV Screen	76	80.00
16. Google Forms	72	75.79
17. Microsoft Teams for Education	70	73.68
18. Zoom/Google Meet	69	72.63
19. Learning Management Systems	68	71.58
20. Google Classroom	62	65.26
21. Quizzizz	45	47.37
22. Kahoot	31	32.63
23. Padlet	28	29.47
24. Nearpod	24	25.26
25. Mentimeter	20	21.05

Table 4 shows that teachers reported high preference for traditional and basic educational tools, while preference levels were lower for advanced and interactive technological tools. This observation suggests that while teachers favor simple, familiar, and easily accessible resources, there is value in exploring the role and practical utility of modern, interactive educational technologies, as patterns of use for these tools have been linked to levels of awareness and available support. The difference in preference reflects that many teachers perceive advanced digital tools as complex, difficult to manage, or less suited to their teaching style. This finding highlights the association between access to training, technical assistance, and ongoing support and patterns of use of these tools in instruction.

These results are consistent with Bekesheva and Canapilov (2024), who conducted a comparative analysis of traditional and modern teaching methods and noted that while traditional approaches remain common due to their familiarity and accessibility, use of modern, interactive technologies has been observed more often in settings where structured training and support are available. Their study noted that where technical support and professional development are limited, teachers tend to view advanced tools as difficult to manage and less aligned with their established teaching practices.

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Table 5.

Teachers' Usage of Educational tools as a Whole

Usage	Frequency	Percentage
Very High	2	2.11
High	39	41.05
Moderate	50	52.63
Low	4	4.21
TOTAL	**95**	**100.00**

M= 3.41 SD= 0.61 (Moderate)

	Interval	Interpretation
5	4.50 – 5.00	Very High
4	3.50 – 4.49	High
3	2.50 – 3.49	Moderate
2	1.50 – 2.49	Low
1	1.00 – 1.49	Very Low

Table 5 shows that most teachers (52.63%) reported a "Moderate" level of educational tool usage (mean = 3.41), while 41.05% showed a "High" level, and only 6.32% reported low utilization. These findings suggest that although educational tools are widely accessible and frequently used, their application remains largely supplementary, with patterns of use linked more to supporting traditional, teacher-centered instruction than to broader shifts in learning processes.

This pattern aligns with the observation of Quirao et al. (2025), who noted that positive attitudes and basic access do not always coincide with extensive or consistent integration. The prevailing moderate usage suggests that tools are treated as add-ons rather than systematically aligned with specific learning objectives, a pattern often associated with limited context-specific pedagogical training, even when physical resources are available. Current practices correspond with incremental changes in instructional delivery, rather than comprehensive adjustments. Further exploration of targeted professional development and intentional instructional design may be relevant, as these dimensions are linked to clearer alignment between tool use and educational goals, and varied patterns of learning activity.

Teachers' Usage of Educational tools when Grouped according to Profile Variables

The table below presents the teachers' usage of educational tools when grouped according to their profile variables, highlighting the differences and similarities in the frequency of utilization across various demographic characteristics.

Table 6.

Teachers' Usage of Educational tools when Grouped according to Profile Variables

Variables	M	SD	Verbal Interpretation
Age			
30 years old and below	3.36	0.74	Moderate
31 - 40 years old	3.48	0.59	Moderate
41 - 50 years old	3.38	0.57	Moderate
Sex			
Male	3.75	0.71	High
Female	3.38	0.60	Moderate
Highest Educational Attainment			
Bachelor's Degree	3.10	0.72	Moderate
Bachelor's Degree with Master's Unit	3.38	0.49	Moderate
Master's Degree	3.53	0.52	High
Master's Degree with Doctoral Units	4.28	0.49	High
Doctoral Degree	3.50	0.71	High
Length of Service			

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1-7 years	3.37	0.69	Moderate
8 - 15 years	3.56	0.51	High
16 - 23 years	3.24	0.56	Moderate
24 - 31 years	3.31	0.58	Moderate
32 - 39 years	3.71	0.76	High
Total	**3.47**	**0.58**	**Moderate**

	Interval	**Interpretation**
5	4.50 – 5.00	Very High
4	3.50 – 4.49	High
3	2.50 – 3.49	Moderate
2	1.50 – 2.49	Low
1	1.00 – 1.49	Very Low

As presented in Table 6, descriptive results show that teachers aged 31–40 years old recorded the highest mean score of 3.48; however, all age cohorts were uniformly interpreted as "Moderate." This indicates that while mean values vary slightly across the age groups, the extent of instructional tool utilization is descriptively comparable across all age brackets. These data suggest that no statistically significant differences in usage were observed across age groups.

In terms of sex, descriptive data show that male teachers obtained a mean score of 3.75 ("High"), while female teachers garnered a mean of 3.38 ("Moderate"). However, inferential testing revealed that this numerical difference is not statistically significant ($p > .05$). Consequently, sex was not found to be systematically associated with variations in how educational tools are utilized within classrooms. The observed difference in ratings reflects minor numerical variation and does not represent a consistent or meaningful divergence in daily instructional practice. This suggests that male and female educators within the district generally demonstrate similar patterns of utilization, reporting comparable approaches to using available resources.

Regarding highest educational attainment, the results show a distinct pattern, where classroom usage levels are significantly associated with advanced academic qualifications. Teachers holding a Bachelor's Degree recorded the lowest mean of 3.10 ("Moderate"), whereas those with graduate-level education—Master's Degree (3.53), Master's Degree with Doctoral Units (4.28), and completed Doctoral Degrees (3.50)—were all interpreted as "High." This observed pattern is statistically significant ($H = 5.06$, $p = .01$), indicating that educational attainment shows a significant association with differences in teachers' usage of educational tools. Advanced post-graduate studies are linked to greater exposure to modern pedagogical theories, action research methodologies, and diverse interactive technologies, which in turn correspond with higher self-reported levels of tool integration.

Finally, when grouped according to length of service, findings indicate highly similar patterns of baseline usage across different tenure groups. The slight variations in mean scores—with cohorts possessing 8–15 years and 32–39 years of service registering "High" usage while other cohorts registered "Moderate"—did not reach statistical significance. This shows that length of service was not associated with meaningful differences in overall usage levels. Teachers with fewer years of experience and those with extensive career tenure report educational tool usage to a similar extent. These data suggest that seniority does not show a systematic association with resistance to new practices, nor does a shorter teaching background correspond with lower usage; instead, classroom integration appears more closely linked to individual technological competence and available school support.

These results are consistent with Kouser and Majid (2021), who noted that technological tools are widely recognized as valuable in instruction, and that higher levels of use have been observed more often among teachers with advanced educational attainment and professional exposure, rather than differing by demographic variables such as age, sex, or length of service. Their study found that advanced qualifications are associated with greater confidence and familiarity when working with educational technologies, a pattern corresponding to differences in reported usage levels.

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Table 7.

Differences in Teachers' Usage of Educational Tools When Grouped According to Profile Variables

Variables	Teacher' Usage of Educational Tools			
	Weighted Mean	Type of Test	Test Value	Asymp. Sig
Age				
30 years old and below	3.36[a]	Kruskal Wallis H-test	0.22[ns]	0.92
31 - 40 years old	3.48[a]			
41 - 50 years old	3.38[a]			
51- 60 years old	3.41[a]			
61 years old and above	3.00[a]			
Sex		Mann-Whitney U-Test	0.07[ns]	0.79
Male	3.75			
Female	3.38[a]			
Highest Educational Attainment				
Bachelor's Degree	3.10[a]	Kruskal Wallis H-test	5.06*	0.01
Bachelor's Degree with Master's Units	3.38[a]			
Master's Degree	3.53[a]			
Master's Degree with Doctoral Units	4.28[a]			
Doctoral Degree	3.50[a]			
Length of Service				
1-7 years	3.37[a]	Kruskal Wallis H-test	1.32 [ns]	0.27
8-15 years	3.56[a]			
16-23 years	3.24[a]			
24-31 years	3.31[a]			
32-39 years	3.71[a]			

Note. Means sharing the same letter superscript are not significantly different

* Significant at $p < 0.05$; ns = not significant.

As presented in Table 7, the analysis shows that highest educational attainment obtained a test value of $H = 5.06$ with a significance value of $p = 0.01$, which is less than the 0.05 level of significance. This indicates a statistically significant difference in the usage of educational tools when teachers are grouped according to this variable. Teachers with higher educational qualifications, particularly those with graduate studies, reported higher levels of usage of educational tools compared to those with lower academic attainment.

This finding aligns with Eskici and Çayak (2023), who observed that advanced educational levels are associated with higher self-reported pedagogical proficiency and more frequent use of educational resources, with postgraduate studies linked to greater exposure to contemporary instructional theories and modern digital platforms. On the other hand, the computed significance values for age ($p = 0.92$), sex ($p = 0.79$), and length of service ($p = 0.27$) were all greater than the 0.05 level of significance. This shows that no statistically significant differences were noted in the usage of educational tools when teachers are grouped according to these demographic characteristics. Consequently, the extent to which educational tools are utilized remains statistically similar whether teachers are younger or older, male or female, or new or more experienced in the service.

Conclusions

Based on the findings of the study, the following conclusions were drawn:

1. Teachers generally demonstrated awareness of educational tools, reflecting that educators possess foundational knowledge regarding available instructional resources. This awareness is associated with patterns of classroom practice and levels of engagement in learning activities.
2. Teachers showed a positive preference toward educational tools, indicating that these resources are recognized as valuable supports in lesson delivery, classroom management, and learning facilitation.
3. The level of teachers' usage of educational tools was moderate, suggesting that while educational tools are recognized and preferred, variations in their use correspond with access to professional development and institutional support.

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4. A significant association was observed between educational attainment and teachers' usage of educational tools, indicating that higher academic qualifications are linked to greater exposure to instructional strategies and approaches involving educational resources.
5. No significant association was found between age, sex, or length of service and teachers' usage of educational tools. The findings suggest that other factors not examined in the present study may account for variations in usage.
6. This study analyzed awareness and preferences using descriptive statistics only; no comparisons or statistical inferences were made for these variables. Only usage was subjected to both descriptive and inferential analyses to examine differences across teacher profiles. This defines the scope of interpretation: results regarding awareness and preference are descriptive in nature, while findings regarding usage allow for comparisons between groups.

Recommendations

Based on the findings of the study, the following recommendations are offered:

1. The Department of Education (DepEd), particularly in the District of Mambusao West, may continue to implement programs and initiatives related to the use of educational tools in classroom instruction. Capacity-building activities focusing on digital instructional resources and technology-related learning approaches may provide relevant support for teachers' knowledge and application of these tools.
2. School heads may maintain support for the use of both traditional and digital instructional materials by ensuring access to practical and user-friendly educational resources that align with current instructional needs and learning activities.
3. School administrators may develop professional development programs that focus on innovative instructional strategies and effective utilization of educational tools to support consistent and varied application within classroom practices.
4. Teachers may participate in collaborative learning activities, mentoring programs, and peer-sharing initiatives to facilitate the exchange of experiences and approaches regarding the use of educational tools across different teaching contexts.
5. Future researchers may conduct similar studies using larger populations, mixed-method designs, or comparative educational settings to further examine factors associated with patterns of tool use in diverse learning environments. Specifically, future studies may apply inferential statistical tests to awareness and preference variables to explore potential differences or associations relative to teacher profiles—an aspect not covered in the analysis of the present study.

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