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ACCEPTANCE AND USE OF EDUCATIONAL TECHNOLOGY AND COMPETENCY LEVEL AMONG PUBLIC SECONDARY TEACHERS: BASIS FOR A FACULTY DEVELOPMENT PROGRAM

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ABSTRACT

This study examined the acceptance and use of educational technology and the level of technological competency among public secondary school teachers in the Schools Division of Bataan during the school year 2025–2026, as a basis for a proposed faculty development program. Employing a quantitative descriptive-correlational research design, the study involved 317 public secondary school teachers selected through stratified random sampling. Data were collected using a researcher-developed and adapted questionnaire anchored on the Unified Theory of Acceptance and Use of Technology (UTAUT), covering teachers' demographic profile, competency across seven educational technology tools, and technology acceptance and use in terms of performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral intention. The research instrument demonstrated excellent reliability with an overall Cronbach's alpha of 0.983. Descriptive and inferential statistical tools were used for data analysis. Findings revealed that teachers were competent in the use of educational technology, with the strongest skills in productivity and office applications. Teachers also exhibited a very high level of acceptance of educational technology, particularly in performance expectancy and behavioral intention. Significant differences were noted in teachers' competency and acceptance when grouped according to age, years of teaching experience, and frequency of technology use, while sex showed no significant difference in overall acceptance. Moreover, a moderate significant positive relationship was found between teachers' technological competency and acceptance and use of educational technology.

Keywords: *Educational Technology, Teacher Competency, Technology Acceptance and Use, UTAUT, Educational Digital Tools*

INTRODUCTION

Educational technology has transformed teaching and learning by making instruction more interactive, engaging, and learner-centered (OECD, 2021). Digital tools such as learning management systems, online assessment platforms, multimedia resources, and artificial intelligence applications offer significant opportunities to enhance instruction, provided they are effectively integrated into the teaching-learning process. The rapid expansion of educational technology, particularly during and after the COVID-19 pandemic, required many teachers to adopt digital tools with limited training and support (Wohlfart & Wagner, 2025). Despite this growth, global and local challenges remain, including unequal access to infrastructure, limited ICT standards for teachers, and disparities in professional development opportunities (Aldave & Obispo, 2025).

Effective technology integration depends not only on access to digital resources but also on teachers' competency, preparedness, and acceptance of technology. Teachers' beliefs and attitudes strongly influence how digital tools are used in the classroom, and without adequate training and support, technology integration may fail to achieve its intended outcomes (Galimova et al., 2024). Research frameworks such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM) emphasize the role of performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral intention in teachers' technology adoption (Raman, 2020).

The Schools Division of Bataan, public secondary schools demonstrated varying levels of access to and use of educational technology. Understanding teachers' technological competency and acceptance is therefore essential in crafting a responsive faculty development program. This study investigated the relationship between teachers' technological competency and acceptance and use of educational technology using a descriptive-correlational design, with the end goal of developing a needs-based faculty development program to strengthen technology integration and improve instructional quality.

Research Questions

1. What is the demographic profile of the teachers?
   1.1. age;
   1.2. sex;
   1.3. years of teaching experience;
   1.4. technology usage frequency?
2. What is the teachers' level of competency in the use of technology in terms of:
   2.1 Learning Management Systems;
   2.2 Online Assessment Tools;

2.3 Presentation and Content Creation Tools;
2.4 Productivity and Office Applications;
2.5. Multimedia Integration;
2.6 Virtual Communication Platforms; and
2.7 Artificial Intelligence Tools;

3. What is the teachers' overall acceptance and use of technology in terms of:
   3.1. performance expectancy;
   3.2. effort expectancy;
   3.3. social influence;
   3.4. facilitating conditions; and
   3.5. behavioral intentions;
4. Is there a significant difference in the teachers' competency level when grouped according to profile?
5. Is there a significant difference in the teachers' overall acceptance and use of technology when grouped according to profile?
6. Is there a significant relationship between teachers' competency level and overall acceptance and use of technology?
7. What faculty development program can be proposed based on the findings of the study?

METHODOLOGY

This study employed a quantitative descriptive-correlational research design to examine the level of teachers' competency in using educational technology and their acceptance and use of such technology, as well as the relationship between these variables. The study was conducted among public secondary school teachers in the Schools Division of Bataan during the school year 2025–2026. To ensure sufficient representation of teachers from various districts, a stratified random sampling was used, yielding 317 teacher respondents. Demographic variables included age, sex, years of teaching experience, and frequency of technology usage.

Data were gathered using a combination of researcher-made and adapted survey questionnaires consisting of three parts: demographic profile, level of technological competency in the use of educational technology across seven domains, and acceptance and use of technology based on the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003). Parts II and Part III utilized a five-point Likert scale. The tool was validated for content by experts in educational technology and research methodology and was pilot tested among 30 teachers. A Cronbach's alpha result of 0.983 was obtained through reliability analysis, indicating excellent internal consistency. Google Forms and printed questionnaires were used for data collection, ensuring informed consent and confidentiality for all participants. The collected data were analyzed using appropriate statistical tools. Frequency and percentage were used to describe the respondents' demographic profile, while weighted mean and standard deviation determined levels of competency and technology acceptance. Mann–Whitney, ANOVA, and Kruskal–Wallis were employed to determine significant differences when

respondents were grouped according to profile variables, and Spearman rho correlation was used to establish relationships between competency and acceptance of educational technology. This study focused only on public secondary school teachers and relied on self-reported data. This does not include private schools, other education levels, or direct classroom observations.

RESULTS AND DISCUSSION

Part I. Profile of the Respondents

Table 1 presents the profile of the respondents in terms of age; sex, experience, and frequency of technology usage in teaching.

Table 1
Profile of the Teachers

Profile	Frequency	Percentage
Age		
23 to 30 years old	114	35.96
31 to 38 years old	61	19.24
39 to 46 years old	63	19.87
47 to 54 years old	47	14.83
55 years old and above	32	10.09
Sex		
Male	88	27.76
Female	229	72.24
Experience		
1 to 5 years	62	19.56
6 to 10 years	100	31.55
11 to 15 years	60	18.93
16 to 20 years	26	8.20
21 years and above	69	21.77
Frequency of Technology Usage in Teaching		
Rarely	1	0.32
Sometimes	29	9.15
Often	178	56.15
Always	109	34.38

Number of Cases = 317

The results indicate that most of the teachers are young to middle-aged. The most teacher respondents were between the ages of 23 and 30 (35.96%), followed by those between the ages of 31 and 46. This suggests that they are adaptable and can grow professionally.

This age group is more open to new ideas and technology integration because younger teachers are more likely to have used digital tools during their pre-service training, while mid-career teachers bring instructional experience. Pozo et al. (2024) support this finding by pointing out that teachers under 40 excelled at using digital tools.

In terms of sex, the data reveal that the teaching profession in the study context is female-dominated, with 72.24% female teachers, consistent with global and regional trends. This dominance implies that technology integration initiatives must be responsive to the professional needs of female teachers, particularly in terms of access, training opportunities, and institutional support. This is aligned with UNESCO (2023), which emphasized the over-representation of females in the global teaching workforce.

Utilization of digital tools is more effective for experienced teachers who regularly use technology for student-centered teaching. Most teachers had between 6 and 10 years (31.55%) and 21 years and above (21.77%) of teaching experience. This data shows that there is a beneficial mix of mid-career and experienced teachers. The evidence shows technology use in the classroom is growing among teachers regardless of their teaching experience. This suggests that technology has been in use for a long time, rather than just following trends. This finding is supported by Wohlfart et al. (2024), who pointed out that technology acceptance happens at different stages of teachers' careers, and experienced teachers maintain this acceptance when they receive institutional support and professional development.

The results indicate that 178 (56.15%) of teachers use the technology often in an instructional setting, and 109 (34.38%) said they use technology often. This means that technology is an essential part of lesson planning, instructional delivery, and assessment, rather than merely a supplementary tool. The small number of teachers (0.32%) who rarely use technology suggests that most teachers accept digital tools. This finding is supported by the research conducted by Pérez et al. (2025), which indicated that teachers continued to use technology frequently even after returning to face-to-face instruction. OECD (2023), reported that teachers continued to use technology frequently even after returning to face-to-face instruction, showing that technology is now a normal part of teaching and that teachers are more confident in post-pandemic educational settings.

Part II. Level of Competency in the Use of Technology

Part II describes the teachers' level of competency in the use of technology in terms of learning management system, online assessment tools, presentation and content creation tools, productivity and office applications, multimedia integration, virtual communication platforms, and artificial intelligence tools.

As shown in Table 2, the teachers are considered competent in the use of technology (Mean=3.83, SD=0.73). Among the domains, it can be gleaned that the highest mark is in terms of use of productivity and office applications (Mean=4.21, SD=0.75) which is described as highly competent. Data also shows that the highest indicator under this domain is indicator 4, "Collaborating through shared documents." (Mean=4.25, SD=0.79),

described as highly competent, while the lowest mean is indicator 3, “Managing files through cloud storage" (Mean=4.13, SD=0.83) and is described as competent.

Table 2
Level of Competency in the Use of Technology

Indicators	Mean	SD	DI
I can create and organize online classes within a Learning Management System.	3.51	1.10	Competent
I can upload learning materials (modules, videos, links) to the LMS.	3.54	1.11	Competent
I can create quizzes, assignments, and other assessments using LMS tools.	3.51	1.10	Competent
I can check and grade student submissions using LMS features.	3.50	1.12	Competent
I can generate reports and monitor student progress using LMS analytics.	3.49	1.12	Competent
Use of Learning Management Systems	**3.51**	**1.08**	**Competent**
I can design online quizzes that use a variety of question types.	3.57	1.07	Competent
I can integrate multimedia elements (images, videos, audio) into assessments.	3.55	1.07	Competent
I can apply settings such as time limits, shuffling questions, and multiple attempts.	3.65	0.94	Competent
I can schedule and share online assessments with students efficiently.	3.63	0.99	Competent
I can download or export student scores for grading or documentation.	3.59	1.07	Competent
Use of online assessment tools to create and administer quizzes and evaluations	**3.60**	**1.00**	**Competent**
I can create visually appealing presentations for instruction.	4.15	0.80	Competent
I can incorporate multimedia elements (images, audio, video) in presentations.	4.04	0.83	Competent
I can design instructional materials suited for both online and face-to-face delivery.	4.03	0.84	Competent
I can utilize templates and advanced features to improve content delivery.	4.05	0.83	Competent
I can download presentation files and share them effectively with students.	4.14	0.81	Competent
Create instructional materials using presentation and content creation tools	**4.08**	**0.78**	**Competent**
I can create and format documents for instructional and administrative use.	4.20	0.81	Highly Competent

I can use spreadsheets to calculate grades, monitor student performance, and prepare accurate reports.	4.23	0.80	Highly Competent
I can manage files and share documents using cloud storage.	4.13	0.83	Competent
I can collaborate with colleagues using shared documents.	4.25	0.79	Highly Competent
I can integrate productivity tools into daily teaching routines.	4.23	0.78	Highly Competent
Use of productivity and office applications	**4.21**	**0.75**	**Highly Competent**
I can create or edit basic instructional videos.	3.60	0.88	Competent
I can record my lessons using screen-recording tools.	3.63	0.88	Competent
I can integrate audio narrations or background music into lesson materials.	3.56	0.97	Competent
I can evaluate and select appropriate multimedia to enhance learning.	3.72	0.90	Competent
I can upload and organize multimedia content for student access.	3.75	0.93	Competent
Integrate multimedia resources into lessons	**3.65**	**0.86**	**Competent**
I can schedule and manage virtual meetings or online classes.	3.77	0.91	Competent
I can use screen sharing and presentation tools during virtual sessions.	3.76	0.93	Competent
I can use virtual platform features to encourage collaborative student activities and peer interaction.	3.70	0.93	Competent
I can manage attendance and participation tools.	3.76	0.93	Competent
I can manage student behavior and engagement using features of virtual communication platforms.	3.74	0.92	Competent
Use virtual communication platforms	**3.75**	**0.89**	**Competent**
I use AI tools to support teaching tasks .	4.02	0.82	Competent
I generate or improve instructional materials using AI	4.01	0.82	Competent
I use AI for proofreading, summarizing, or rephrasing content	3.97	0.83	Competent
I integrate AI generated content ethically	4.01	0.85	Competent
I use AI tools for administrative and professional tasks	3.99	0.89	Competent
Use artificial intelligence tools	**4.00**	**0.80**	**Competent**
Overall	**3.83**	**0.73**	**Competent**

Legend: *4.20-5.00 Highly Competent (HC); 3.40-4.19 Competent (C); 2.60-3.39 Moderately Competent (MC); 1.80-2.59 Slightly Competent (SC); 1.00-1.79 Not Competent (NC)*

The second highest domain is creating instructional materials using presentation and content creation tools (Mean=4.08, SD=0.78) which is described as competent. Data also

shows that the highest indicator under this domain is indicator 1, “Creating visually appealing presentations" (Mean=4.15, SD=0.80), described as competent, while the lowest mean is indicator 3, “Designing instructional materials for flexible delivery for online and offline” (Mean=4.03, SD=0.84) and is also described as competent.

The third highest domain is use of artificial intelligence tools (Mean=4.00, SD=0.80) which is described as competent. Data also shows that the highest indicator under this domain is indicator 1, “Using AI to support teaching tasks" (Mean=4.02, SD=0.82), described as competent, while the lowest mean is indicator 3, “Using AI for editing such proofreading, summarizing, rephrasing” (Mean=3.97, SD=0.83) and is described also as competent.

Teachers are also considered competent in terms of use of virtual communication platforms (Mean=3.75, SD=0.89). Data also shows that the highest indicator under this domain is indicator 1, “Scheduling and managing virtual classes” Mean=3.77, (SD=0.91), described as competent, while the lowest mean is on indicator 3, “Facilitating collaboration and interaction” (Mean=3.70, SD=0.93) and is also described as competent.

Similarly, teachers are also considered competent in terms of integrating multimedia resources into lessons (Mean=3.65, SD=0.86). Data also shows that the highest indicator under this domain is indicator 5, “Organizing multimedia content for access” (Mean=3.75, SD=0.93), described as competent, while the lowest mean is on indicator 3, “Adding audio narration and background elements" (Mean=3.56, SD=0.97), and is described also as competent.

Likewise, teachers are also considered competent in terms of using online assessment tools to create and administer quizzes and evaluations (Mean=3.60, SD=1.00). Data also shows that the highest indicator under this domain is indicator 3, “Applying assessment settings" (mean=3.65, SD=0.94), described as competent, while the lowest mean is on indicator 2, “Integrating multimedia elements into assessments.” (Mean=3.55, SD=1.07) and is also described as competent.

Lastly, teachers are also considered competent in terms of using learning management systems (Mean=3.51, SD=1.08). Data also shows that the highest indicator under this domain is indicator 2, “Integrating multimedia elements into assessments" (Mean=3.54, SD=1.11), described as competent, while the lowest mean is on indicator 5, “Generating reports and monitoring student progress" (Mean=3.49, SD=1.12) and is also described as competent.

The results indicate that teachers are competent in the use of digital technology (Mean = 3.83, SD = 0.73). This suggests that digital tools are part of the instructional and administrative task of teachers, which is essential for enhancing teaching effectiveness and student engagement in the learning process. The result of relatively low variability across the domains reflects a consistent level of technological competence among teachers, indicating that such skills are broadly shared rather than concentrated among a few individuals. This coincides with findings by Dogan et al. (2021), a study revealed

that teachers' perceived technological competence is influenced by regular and effective utilization of educational technology in teaching.

Among the different educational technology domains, teachers are highly competent or expert in productivity and office applications (mean = 4.21), particularly in sharing and updating documents. This means that teachers who use productivity software often become skilled and independent. The OECD (2023) reported that teachers in different education systems are most confident in digital tools that are part of teachers' routine professional practice, such as platforms for processing documents, communication, and collaboration.

Teachers were also found to be competent in crafting instructional materials, using AI tools, virtual communication platforms, multimedia integration, online assessment tools, and learning management systems and obtained comparatively lower means, though still within the competent range. Although these domains generated comparatively lower mean scores, this pattern suggests functional rather than advanced integration, particularly for technologies requiring instructional pedagogical practice, analytics, and creative application. This supports the study conducted by Akram et al. (2022), which noted that teachers demonstrate solid technological familiarity but require targeted training to deepen pedagogical and instructional use. Moreover, Xue et al. (2025) noted that AI adoption among teachers remains at an early stage, characterized by task-oriented rather than transformative utilization. Overall, the findings suggest a transition from basic technology adoption to sustained integration, highlighting the need for continued professional development to enhance higher-order and pedagogically driven uses of educational technologies.

Part III. Overall Acceptance

Part III describes the teachers' overall acceptance in the use of technology in terms of performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral intentions.

Table 3
Overall Acceptance and Use of Educational Technology

Indicators	Mean	SD	DI
Using educational technology improves my teaching effectiveness.	4.70	0.52	Strongly Agree
Educational technology helps me accomplish tasks more quickly.	4.73	0.44	Strongly Agree
Using educational technology increases my productivity as a teacher.	4.67	0.53	Strongly Agree
Using educational technology improves my chances of performing better in my teaching responsibilities.	4.69	0.49	Strongly Agree
Performance Expectancy	**4.70**	**0.46**	**Strongly Agree**

My interaction with educational technology is clear and understandable.	4.37	0.61	Strongly Agree
It is easy for me to become skillful at using educational technology.	4.33	0.65	Strongly Agree
I find educational technology easy to use during my teaching tasks.	4.36	0.65	Strongly Agree
Learning to use educational technology is easy for me.	4.32	0.64	Strongly Agree
Effort Expectancy	**4.34**	**0.58**	**Strongly Agree**
People who influence my teaching encourage me to use educational technology.	4.48	0.59	Strongly Agree
People important to me believe I should use educational technology.	4.50	0.57	Strongly Agree
School administrators encourage the use of educational technology.	4.50	0.58	Strongly Agree
The school generally supports teachers in using educational technology.	4.51	0.58	Strongly Agree
Social Influence	**4.50**	**0.54**	**Strongly Agree**
I have access to the resources I need to use educational technology.	4.34	0.61	Strongly Agree
I have sufficient knowledge to use educational technology effectively.	4.29	0.62	Strongly Agree
The educational technology tools provided are compatible with those I already use.	4.32	0.63	Strongly Agree
There is someone available to assist me when I encounter difficulties in using educational technology.	4.45	0.57	Strongly Agree
Facilitating Conditions	**4.35**	**0.53**	**Strongly Agree**
I will always try to use educational technology in my classroom.	4.53	0.61	Strongly Agree
I plan to increase my use of educational technology in the future.	4.56	0.57	Strongly Agree
I am committed to integrating educational technology into my teaching.	4.58	0.58	Strongly Agree
Behavioral Intention	**4.56**	**0.57**	**Strongly Agree**
Overall	**4.49**	**0.45**	**Strongly Agree**

Legend: *4.20-5.00 Strongly Agree; 3.40-4.19 Agree; 2.60-3.39 Neutral; 1.80-2.59 Disagree; 1.00-1.79 Strongly Disagree*

As shown in Table 3, the teachers have strongly agreed on the overall acceptance in the use of technology (Mean=4.49, SD=0.45). This indicate that teachers exhibit a very high level of technology acceptance, as reflected by the overall mean score of 4.49, which is interpreted as strongly agree. This suggests that technology use is not only accepted but

has become an integral and valued component of teachers' instructional and professional practices. The relatively low standard deviation further implies that teachers' acceptance of technology is consistent across respondents, indicating a shared readiness to utilize digital tools in educational settings.

Among the domains, it can be gleaned that the highest mark is in terms of performance expectancy (Mean=4.70, SD=0.46) which is described as strongly agree. Data also shows that the highest indicator under this domain is on indicator 2 "Educational technology helps me accomplish tasks more quickly." (Mean=4.73, SD=0.44), described as strongly agree while the lowest mean is on indicator 3 "Using educational technology increases my productivity as a teacher." (Mean=4.67, SD=0.83) and is described also as strongly agree.

The findings revealed that teachers strongly agree with the construct of technology acceptance such as performance expectancy, effort expectancy, social influence, facilitating condition and behavioral intention (Mean = 4.49, SD = 0.45). This means that educational technologies are not only accepted, but they are also seen as necessary for teaching and professional instructional practice. The low standard deviation shows that teachers are consistently accepting of technology, which suggests that most of the teachers are ready to use. Performance expectancy was the strongest factor among the UTAUT domains (Mean = 4.70). This means that teachers strongly believe that technology makes teaching more efficient, productive, and effective, which are all important reasons for continued use.

This indicates that teachers recognize clear and tangible advantages from using technology in an educational setting, which is a key factor in determining if they keep utilizing it. The researcher believes that teachers' strong belief in the usefulness of technology is largely due to the fact that they have been using it more recently as schools have shifted toward blended, online, and digitally enabled learning settings. Teachers are more likely to utilize and keep using technology when they see that it improves teaching and learning.

This is aligns with the study of Noureddine et al. (2025), findings revealed that performance expectancy is the most significant predictor of teachers' intentions to adopt and maintain the use of educational technology. Likewise, Dindar et al. (2021) observed that teachers' continuing use of learning technologies throughout and after the COVID-19 pandemic was mostly due to how valuable digital tools and easy they thought they were to use. These findings suggest a strong positive perceptions across the acceptance and use construct of educational technology, which create a positive environment for effective technology integration in teaching.

Part IV. Differences in the Level of Educational Technology Competence

Part IV presents the differences in the teachers' educational technology competence level when grouped according to profile.

As shown in Table 4, the result of the analysis using the Kruskal Wallis H-test, a non-parametric test, which was appropriately used since the data does not meet the assumptions for a one-way Anova, indicates that there is enough evidence to claim that there exists a significant difference in the teachers' level of competence (H=68.68, df=4, p<.001), when teachers are grouped according to age, since the p-value is lesser than the alpha of .05, thus, rejecting the null hypothesis, indicating that age influences digital technology skills.

Table 4
Level of Competence vis-à-vis Age

Variables	Group	Mean Score	Mean Rank	H	Sig.	Decision on H_o	Interpretation
Level of Competency	23 to 30 years old	4.17	196.84	68.68	<.001	Reject	Significant
	31 to 38 years old	3.95	183.03				
	39 to 46 years old	3.80	145.58				
	47 to 54 years old	3.41	112.87				
	55 years old and above	3.07	72.56				

at .05 level of Sig. (df=4)

Further analysis using the Dunn's multiple comparison test indicates that the difference is found between the group of teachers whose age is between 39 to 46 years old (Mean=3.80, Mean Rank=145.58) is compared to 23 to 30 years old (Mean=4.17, Mean Rank=196.84).

Evidently, there is significant difference is when the group of teachers whose age is 47 to 54 years old (Mean=3.41, Mean Rank=112.87) is compared to 23 to 30 years old, 31 to 38 years old, and 39 to 46 years old, suggesting a generational gap in technological proficiency.

Similarly, significant difference is found when the group of teachers whose age is 55 years old and above (Mean=3.07, Mean Rank=72.56) is compared to 23 to 30 years old, 31 to 38 years old, and 39 to 46 years old.

This finding is aligned with research that younger teachers tend to have greater digital proficiency, attributed to increased exposure to digital technology during their formative and professional growth years (Scherer et al., 2021; OECD, 2023). Recent studies, however, indicate that age-related disparities can decrease by continuous professional development and institutional support, allowing teachers of various ages to improve teacher digital competency (Amhag et al., 2021; Scherer et al., 2021).

Table 5
Level of Competence vis-à-vis Sex

Variables	Group	Mean	Mean Rank	U	Sig.	Decision on H_o	Interpretation
Level of Competence	Male	3.98	176.36	8548 .00	0.036	Reject	Significant
	Female	3.77	152.33				

at .05 level of Sig.

The result of the analysis using the Mann Whitney U-test, a non-parametric test, which was appropriately used since the data does not meet the assumptions for an Independent Sample t-test, indicates that there is enough evidence to claim that there exists a significant difference in the teachers' level of competence (U=8548.00, p=0.036), when teachers are grouped according to sex, since the p-values is lesser than the alpha of .05, thus, rejecting the null hypothesis.

This finding suggests that sex is associated with variations in technological competence, though the difference should be interpreted within contextual and institutional factors rather than innate capability. Consistent with this result, Scherer et al. (2021) reported that male teachers often exhibit higher digital self-efficacy and confidence, which may influence perceived and actual competence levels. However, aligned with OECD (2023), the observed difference is likely shaped by access to training, support, and professional development opportunities, indicating that competence gaps across sexes are malleable and can be reduced through inclusive and equitable technology integration initiatives.

Table 6
Level of Educational Technology Competence vis-à-vis Years of Experience

Variables	Group	Mean Score	Mean Rank	H	Sig.	Decision on H_o	Interpretation
Level of Competency	1 to 5 years	3.99	174.92	61.23	<.001	Reject	Significant
	6 to 10 years	4.19	195.04				
	11 to 15 years	3.71	151.25				
	16 to 20 years	3.79	164.75				
	21 years and above	3.29	97.04				

at .05 level of Sig. (df=4)

The result of the analysis using the Kruskal Wallis H-test, a non-parametric test, which was appropriately used since the data does not meet the assumptions for a one-way Anova, indicates that there is enough evidence to claim that there exists a significant difference in the teachers' level of competence (H=61.23, df=4, p<.001), when teachers are grouped according to years of experience, since the p-value is lesser than the alpha of .05, thus, rejecting the null hypothesis.

Further analysis using the Dunn's multiple comparison test indicates that the difference is found between the group of teachers whose years of experience is 21 years and above

(Mean=3.29, Mean Rank=97.04) is compared with 1 to 5 years (Mean=3.99, Mean Rank=174.92) and 6 to 10 years (Mean=4.19, Mean Rank=195.04).

Similarly, significant difference is found when the group of teachers whose year of experience is between 11 to 15 years (Mean=3.71, Mean Rank=151.25) is compared to 6 to 10 years (Mean=4.19, Mean Rank=195.04).

This finding aligns with prior research showing that early- and mid-career teachers exhibit higher digital competence due to technology-integrated teacher education and recent professional training (Scherer et al., 2021). Competence differences among veteran teachers are not fixed but can be mitigated through sustained professional development and institutional support (Amhag et al., 2021; OECD, 2023), underscoring the need for differentiated and continuous digital capacity-building initiatives across career stages.

Table 7
Level of Educational Technology Competence vis-à-vis Frequency of Usage

Variables	Group	Mean Score	Mean Rank	H	Sig.	Decision on H_o	Interpretation
Level of Competency	Sometimes	3.03	82.64	87.99	<.001	Reject	Significant
	Often	3.68	148.23				
	Always	4.29	198.29				

at .05 level of Sig. (df=4)

The result of the analysis using the Kruskal-Wallis H-test, a non-parametric test that was appropriately used since the data does not meet the assumptions for a one-way ANOVA, indicates that there is enough evidence to claim that there exists a significant difference in the teachers' level of competence (H=87.99, df=2, p<.001) when teachers are grouped according to their frequency of technology usage, since the p-value is less than the alpha of .05, thus rejecting the null hypothesis.

Further analysis using the Dunn's multiple comparison test indicates that the difference is found when the group of teachers who sometimes use technology (Mean=3.03, Mean Rank=82.64) is compared to those who often use technology (Mean=3.68, Mean Rank=148.23) and those who always use technology (Mean=4.29, Mean Rank=198.29).

Similarly, a significant difference is found when the group of teachers who often use technology (Mean=3.68, Mean Rank=148.23) is compared to those who always use technology (Mean=4.29, Mean Rank=198.29).

The results revealed a statistically significant difference in teachers' level of competence when grouped according to the frequency of technology usage. In the education setting, teachers who always used digital technology are more adaptable to change, willing to experiment, and equipped to accept evolving instructional demands. These findings highlight the vital role of encouraging consistent technology use rather than compliance-driven implementation. To help teachers become more competent overall,

schools should create environments that make routine technology integration normal and encourage it.

This supports the study of Scherer et al. (2021), which found that teachers who consistently integrate digital tools into their teaching demonstrate significantly higher levels of digital competence and instructional confidence than those who use technology rarely. This aligns with the present study's finding that teachers who always use technology possess the highest competence levels.

Part IV. Differences in the Overall Acceptance and Use of Educational Technology

Part IV presents the differences in the teachers' overall acceptance and use of educational technology when grouped according to profile.

Table 8
Overall Acceptance and Use of Educational Technology vis-à-vis Age

Variables	Group	Mean Score	Mean Rank	H	Sig.	Decision on H_o	Interpretation
Overall Acceptance	23 to 30 years old	4.71	196.25	54.19	<.001	Reject	Significant
	31 to 38 years old	4.51	158.60				
	39 to 46 years old	4.33	128.83				
	47 to 54 years old	4.31	142.52				
	55 years old and above	4.22	110.64				

at .05 level of Sig. (df=4)

The result of the analysis using the Kruskal-Wallis H-test, a non-parametric test, which was appropriately used since the data does not meet the assumptions for a one-way ANOVA, indicates that there is enough evidence to claim that there exists a significant difference in the teachers' overall acceptance (H=54.19, df=4, p<.001) when teachers are grouped according to age since the p-value is less than the alpha of .05, thus rejecting the null hypothesis.

Further analysis using Dunn's multiple comparison test indicates that the difference is found when the group of teachers whose age is between 55 years old and above (Mean=4.22, Mean Rank=110.64) is compared to 31 to 38 years old (Mean=4.51, Mean Rank=158.60) and 23 to 30 years old (Mean=4.71, Mean Rank=196.25).

Similarly, a significant difference is found when the group of teachers whose ages are 47 to 54 years old (Mean=4.31, Mean Rank=142.52) is compared to those 23 to 30 years old (Mean=4.71, Mean Rank=196.25).

The findings revealed a statistically significant difference in teachers' overall technology acceptance across age groups (H = 54.19, p < .001), with younger teachers exhibiting higher acceptance compared to the older age group. Teachers aged 23–30 years showed

the strongest acceptance, while progressively lower levels were observed among older age groups, indicating a generational difference in acceptance of educational technology.

This aligns with studies showing that younger teachers demonstrate higher performance expectancy and behavioral intention toward technology use (Scherer et al., 2021; Dindar et al., 2021). However, consistent with recent literature, age-related differences in acceptance are not fixed and can be mitigated through sustained professional development and institutional support (Scherer et al., 2021; OECD, 2023), emphasizing the necessity of inclusive, lifelong digital learning initiatives.

Table 9
Overall Acceptance and Use of Educational vis-à-vis Sex

Variables	Group	Mean	Mean Rank	U	Sig.	Decision on H_o	Interpretation
Overall Acceptance	Male	4.50	162.76	9745.00	0.648	Failed to Reject	Not Significant
	Female	4.48	157.55				

at .05 level of Sig.

The result of the analysis using the Mann Whitney U-test, a non-parametric test, which was appropriately used since the data does not meet the assumptions for an Independent Sample t-test, indicates that there is not enough evidence to claim that there exists a significant difference in the teachers' overall acceptance (U=9745.00, p=0.648), when teachers are grouped according to sex, since the p-values is greater than the alpha of .05, thus, failing to reject the null hypothesis.

The findings suggests that there is no statistically significant difference in teachers' overall acceptance of technology when grouped according to sex. Both male (Mean = 4.50) and female teachers (Mean = 4.48) demonstrated similarly levels of acceptance, This indicate that sex does not significantly influence teachers' overall acceptance of technology. As the researcher, this finding suggests that both groups share the same perceptions regarding the usefulness, ease of use, and relevance of technology in teaching and professional tasks.

This suggests that technology acceptance has become a normalized aspect of professional practice. This supports the findings that when teachers receive comparable support and professional development, technology acceptance levels across sexes are largely equivalent (Scherer et al., 2021).

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Table 10
Overall Acceptance and Use of Educational vis-à-vis Years of Experience

Variables	Group	Mean Score	Mean Rank	H	Sig.	Decision on H_o	Interpretation
Overall Acceptance	1 to 5 years	4.59	181.18	35.10	<.001	Reject	Significant
	6 to 10 years	4.63	178.48				

11 to 15 years	4.44	153.80
16 to 20 years	4.33	119.27
21 years above	4.30	130.33

at .05 level of Sig. (df=4)

The result of the analysis using the Kruskal-Wallis H-test, a non-parametric test, which was appropriately used since the data does not meet the assumptions for a one-way ANOVA, indicates that there is enough evidence to claim that there exists a significant difference in the teachers' level of overall acceptance (H=35.10, df=4, p<.001) when teachers are grouped according to years of experience, since the p-value is less than the alpha of .05, thus rejecting the null hypothesis.

Further analysis using Dunn's multiple comparison test indicates that the difference is found when the group of teachers whose years of experience are 6 to 10 years (Mean=4.63, Mean Rank=178.48) is compared with those who have 21 years and above (Mean=4.30, Mean Rank=130.33), 16 to 20 years (Mean=4.33, Mean Rank=119.27), and 11 to 15 years (Mean=4.44, Mean Rank=153.80).

Similarly, a significant difference is found when the group of teachers whose years of experience are between 1 to 5 years (Mean=4.59, Mean Rank=181.18) is compared to 21 years and above (Mean=4.30, Mean Rank=130.33).

The Kruskal–Wallis H-test revealed a significant difference in teachers' overall technology acceptance across years of experience (H = 35.10, p < .001), with early- to mid-career teachers (1–10 years) demonstrating higher acceptance than veteran teachers. This suggests that teachers who entered the profession more recently are more receptive to technology, likely due to greater exposure to technology-integrated pre-service training and contemporary instructional demands.

This finding is consistent with previous studies indicating that early-career teachers show stronger technology acceptance, while acceptance tends to decline with increased tenure unless supported by continuous professional development (Scherer et al., 2021; Dindar et al., 2021). Recent literature further emphasizes that sustained training and supportive institutional conditions can enhance technology acceptance among experienced teachers, reducing career-stage disparities (Scherer et al., 2023; OECD, 2023).

Table 11
Overall Acceptance and Use of Educational vis-à-vis Frequency of Usage

Variables	Group	Mean Score	Mean Rank	H	Sig.	Decision on H_o	Interpretation
Overall Acceptance	Sometimes	4.08	85.84	57.81	<.001	Reject	Significant
	Often	4.42	148.89				
	Always	4.73	196.32				

at .05 level of Sig. (df=4)

The result of the analysis using the Kruskal-Wallis H-test, a non-parametric test, which was appropriately used since the data does not meet the assumptions for a one-way ANOVA, indicates that there is enough evidence to claim that there exists a significant difference in the teachers' level of competence (H=57.81, df=2, p<.001) when teachers are grouped according to their frequency of technology usage, since the p-value is less than the alpha of .05, thus rejecting the null hypothesis.

Further analysis using the Dunn's multiple comparison test indicates that the difference is found when the group of teachers who sometimes use technology (Mean=4.08, Mean Rank=85.84) is compared to those who often use technology (Mean=4.42, Mean Rank=148.89) and those who always use technology (Mean=4.73, Mean Rank=196.32). Similarly, a significant difference is found when the group of teachers who often use technology (Mean=4.42, Mean Rank=148.89) is compared to those who always use technology (Mean=4.73, Mean Rank=196.32).

Findings revealed a significant difference in teachers' overall acceptance of technology based on frequency of technology usage (H = 57.81, p < .001). Teachers who always used technology demonstrated the highest acceptance and use of digital tools, followed by those who used it often, while those who used it sometimes showed the lowest acceptance.

This pattern indicates that sustained and frequent engagement with digital tools strengthens positive perceptions, familiarity, and confidence in technology use. Consistent with research findings, frequent technology use reinforces acceptance through repeated practice and meaningful integration (Scherer et al., 2021). Post pandemic studies further confirm that habitual technology use enhances perceived usefulness and behavioral intention, thereby sustaining teachers' acceptance over time (Dindar et al., 2021; OECD, 2023).

Table 12
Relationship between Level of Competency and Acceptance and Use of Educational Technology

Indicators	r_s	Sig.	Decision on H_o	Interpretation
Level of Competence → Teachers' Overall Acceptance	.489**	<.001	Reject	Significant

Legend: *r: ±0.80-1.0 Very Strong; ±0.60-0.79 Strong; ±0.40-0.59 Moderate; ±0.20-0.39 Weak; ±0.00-0.19 Very Weak*

The result of the analysis using Spearman Rho Correlation shows that there is enough evidence to claim that there exists a moderate significant relationship between the level of competence and teachers' overall acceptance (r_s =0.489**, p<.001), provided by the p-value that is statistically lesser than the alpha of .05, thus rejecting the null hypothesis.

This suggests that teachers who feel more skilled and confident in using digital tools are more likely to perceive technology as useful, easy to use, and relevant to their

professional practice. This finding is consistent with prior research showing that digital competence positively influences perceived usefulness, ease of use, and behavioral intention toward technology adoption (Scherer et al., 2021). Research findings after pandemic further confirm that increased competence acquired through sustained technology use strengthens teachers' acceptance and willingness to continue technology integration (Dindar et al., 2021; OECD, 2023). Overall, the results underscore that enhancing teachers' technological competence is a key strategy for fostering sustained acceptance of educational technologies.

Conclusions

1. Teachers come from varied backgrounds, are composed of female-dominated professions, are relatively young, are moderately experienced, and are frequent users of educational technology.

2. Teachers performed best in productivity and applications, presentations, content creation tools, and AI tools, while maintaining competent performance in learning management systems, online assessment tools, multimedia integration, and virtual communication platforms.

3. Teachers demonstrated a high level of acceptance and use of technology as reflected with strong agreement with the five constructs of UTAUT, an indication of readiness for technology integration in teaching.

4. Significant differences were observed when teachers were grouped according to age, sex, years of teaching experience, and frequency of technology use when compared with technological competence. Younger teachers, male teachers, those with fewer years of teaching experience, and those who frequently use technology showed higher levels of competence.

5. Significant differences were found based on age, years of teaching experience, and frequency of technology use when compared to teachers' acceptance and use of educational technology, while no significant difference was observed when grouped according to sex.

6. There is a moderate, significant positive correlation between teachers' technological competence and their acceptance and utilization of educational technology. This suggests that higher competence correlates with increased acceptance and a greater intention to integrate educational technology into teaching.

7. Based on the identified competency, a structured faculty development program focusing on learning management systems, online assessment, multimedia content creation, virtual teaching platforms, and ethical use of artificial intelligence is deemed necessary to enhance teachers' technological competence and sustain effective technology integration.

Recommendations

1. School heads may institutionalize and promote school culture that has continuous and targeted professional development programs that address varying levels of technological competence among teachers, particularly focusing on older teachers and those with longer years of teaching experience who exhibit lower levels of competence and acceptance.

2. Implementation of the proposed structured faculty development program, prioritizing training on learning management systems, online assessment tools, multimedia content creation, virtual teaching platforms, and ethical use of artificial intelligence to sustain and improve existing competencies.

3. Training initiatives should be differentiated and flexible to accommodate teachers' age, years of experience, and frequency of technology use, ensuring that professional development activities are responsive to varying needs and skill levels.

4. Teachers may be encouraged to consistently and intentionally use educational technology in their instructional practices, as frequent use was found to be associated with higher levels of competence and acceptance.

5. School leaders may continue to strengthen facilitating conditions by ensuring access to adequate technological resources, stable internet connectivity, and ongoing technical support to maintain teachers' high level of acceptance and readiness to use technology.

6. Schools may promote peer mentoring and collaborative learning among teachers to support colleagues who may need additional guidance, thereby fostering a culture of shared learning and continuous improvement.

7. Future studies may explore other factors influencing teachers' technological competence and acceptance, such as access to resources, self-efficacy, school culture, and resistance in embracing the teaching-learning process.

Proposed Faculty Development Program

Basis: Findings of the Study on Acceptance and Use of Educational Technology and Competency Level among Public Secondary Teachers

Key Result Area (KRA)	Objective	Strategies / Activities	Timeline	Persons Involved	Resources Needed
Learning Management System Proficiency	Enhance teachers' competence in managing LMS-based instruction and assessment	Hands-on training on Google Classroom and workshop on LMS analytics and	Brigada Eskwela June 1-5, 2026	Teachers, ICT Coordinators School Heads	Computers, internet access, LMS accounts, training modules

		monitoring student progress			
Online Assessment and Digital Creation and Evaluation	Improve teachers' skills in designing valid and secure online assessments	Workshop on Google Forms and Quizizz; seminar on assessment integrity and feedback strategies	End of Term 1 Sept. 10-11	Teachers, ICT Coordinators School Heads	Digital assessment tools, training guides
Multimedia and Instructional Content Creation	Strengthen teachers' ability to develop engaging multimedia instructional materials	Training on Canva, PowerPoint, video editing, and screen recording tools	End of Term 2 Dec 17-18, 2026	Teachers, ICT Coordinators School Heads	Multimedia software, Online presentation software laptops,
Virtual Teaching and Communication	Improve competence in managing synchronous and asynchronous online classes	Training on Zoom, Google Meet, MS Teams collaborative and engagement features	End of Term 3 Inset April 2,5 2026	Teachers, ICT Coordinators School Heads	Video conferencing tools, stable internet

Compliance with Ethical Standards

This study adhered to established ethical standards in educational research to ensure the protection, rights, and welfare of all respondents. The researcher seeks approval from the Schools Division Office of Bataan prior to data collection. Proper coordination was made with the public schools district supervisor and school heads to ensure the smooth distribution and administration of the research questionnaire. These approvals ensured that the conduct of the study complied with institutional and departmental research protocols.

An informed consent statement was attached to the printed questionnaire and the google form; the statement is to inform respondents about the purpose of the research study. The consent form clearly explained that participation was voluntary and that all responses would be treated with strict confidentiality and used solely for research purposes.

The Unified Theory of Acceptance and Use of Technology (UTAUT) instrument used in this study, developed by Venkatesh et al. (2003), was utilized to measure teachers' acceptance and use of educational technologies, and permission to use the instrument was obtained.

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