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Digital Expertise and Stress Coping Skills as Predictors of Technological Adaptability in Secondary School Teachers

Jake Levinson R. Villarente[1], James L. Paglinawan[2], Welmarie P. Villarente[3]

[1]*Department of Education, Kitaotao National High School, Philippines*

[2]*College of Education, Central Mindanao University, Philippines*

[3]*Department of Education, Kitaotao National High School, Philippines*

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Abstract: This study investigated the relationship between digital expertise, stress-coping skills, and technological adaptability among secondary school teachers in the Division of Bukidnon. Utilizing a quantitative research design, 266 teachers participated in a survey that measured their levels of digital proficiency, coping strategies, and readiness to integrate technology into the classroom. Results consistently showed high levels of digital expertise and stress-coping skills, with teachers demonstrating confidence in using digital tools, in adopting adaptive teaching methods, and in engaging in continuous learning. Significant positive correlations were found between digital expertise and coping skills, on the one hand, and technological adaptability, on the other, indicating that teachers who possess strong technical competence and adaptive coping mechanisms are better equipped to manage technological change. Regression analysis revealed that adaptability and continuous learning, along with problem-focused coping, were the strongest predictors of technological adaptability. These findings underscore the importance of ongoing professional development, institutional support, and collaborative networks in maintaining teacher resilience and effectiveness in digitally enriched educational environments.

Keywords: digital expertise, stress coping skills, technological adaptability, secondary school teachers, professional development

I. Introduction

Background

Digital skills shape how teachers adapt to new technology. Secondary school teachers in the Philippines face increasing demands to learn digital tools for blended learning, as many schools lack sufficient training and support for these changes (Gonzales & Bala, 2021). Furthermore, similar challenges arise in adapting to curriculum reforms, where teachers should modify their instructional styles and develop new competencies to use technology effectively (Kilag et al., 2024; Echavez Jr. et al., 2024). Local studies showed that teachers often rely on self-training, collaboration, and school-based support to build confidence and manage rising stress (Alpuerto, 2022).

International research shows similar trends. In Indonesia, teachers struggle with digital teaching due to training gaps (Kusuma et al., 2019). In fact, teachers in Africa often experience stress due to inadequate digital readiness and limited support systems. Nevertheless, with emotional and instructional support, engagement and adaptability can be enhanced (Adu et al., 2022; Diab & Green, 2024). Moreover, in Romania, technology-related teaching skills and effective coping mechanisms have enhanced teacher well-being and lessened burnout in online teaching settings (Stan, 2022). Globally, advances in digital integration drive continuous development and stress, especially among educators with limited access or readiness (Fraillon et al., 2019; Oyedotun, 2020; Yang, 2025).

Research in the Philippines highlights ongoing problems. Many teachers lack confidence in using technology. Stress levels rise as digital expectations increase, leading to lower work satisfaction (Tolentino, 2022). Studies note the importance of ongoing professional development, sustained emotional support, and institutional investment in technology to foster adaptability (Ahmad, 2025). Teachers who develop higher digital skills and effective coping strategies demonstrate improved resilience and engagement as changes persist (Salkovsky et al., 2015; Lipayon, 2020; Gamad, 2025).

Teachers face unique pressures in secondary schools. Digital expertise influences how teachers adapt to technology. Strong coping skills help manage stress brought by constant digital demands. If schools fail to invest in training, clear policies, and emotional support, the gap between teacher preparedness and technological requirements will persist (Llego, 2018; Ismail et al., 2020; Trust et al., 2022). Globally, the development of digital competence remains an urgent educational priority to ensure sustainable adaptation (Ahmad, 2025).

Thus, this study aims to fill critical gaps in teacher preparedness and support by examining how digital expertise and stress coping skills predict technological adaptability.

Statement of the Problem

Specifically, the study seeks to answer the following research questions:

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

1) What is the level of digital expertise among secondary school teachers in terms of technological proficiency, attitudes towards online teaching, access and usage of technology, adaptability, and continuous learning?
2) What is the level of stress coping skills among secondary school teachers in terms of: problem-focused coping, emotion-focused coping, social support coping, and avoidance/disengagement coping (Positive Reframe)?
3) What is the level of technological adaptability of secondary school teachers in terms of: digital skills proficiency, attitudes towards digital integration, adaptability to digital teaching environment, and participation in professional development?
4) Is there any relationship between digital expertise, stress coping skills, and technological adaptability of secondary school teachers?
5) Which variables singly or in combination best predict the technological adaptability of secondary school teachers?

Objective of the Study

To address these questions, the objectives of the study are:

1) Determine the level of digital expertise among secondary school teachers in terms of: technological proficiency, attitudes towards online teaching, access and usage of technology, adaptability, and continuous learning.
2) Ascertain the level of stress coping skills among secondary school teachers in terms of: problem-focused coping, emotion-focused coping, social support coping, and avoidance/disengagement coping (Positive Reframe).
3) Assess the level of technological adaptability of secondary school teachers in terms of: digital skills proficiency, attitudes towards digital integration, adaptability to digital teaching environment, and participation in professional development.
4) Correlate between digital expertise, stress coping skills, and technological adaptability of secondary school teachers?
5) Identify the variables singly or in combination that best predict the technological adaptability of secondary school teachers?

II. Literature Review

Digital Expertise and Teacher Adaptation

The integration of digital technology in education has transformed teaching roles and instructional delivery worldwide. Digital expertise, encompassing technological proficiency, attitudes towards online teaching, and ongoing learning, is widely cited as essential for teacher adaptation in the modern classroom. In the Philippines, teachers' digital literacy and competence significantly shape instructional quality and learner engagement—especially in remote and blended settings (Abantas-Emji et al., 2024). Post-pandemic pedagogic research indicates that well-resourced educators with advanced ICT skills demonstrate greater confidence and flexibility (IJORER, 2023). Access to digital resources and positive attitudes further strengthen teachers' capabilities for efficient lesson delivery and management (UNESCO GEM Report, 2023).

International studies identify persistent gaps in digital competence, with teachers experiencing technostress due to limited training and insufficient support (Sokal et al., 2020; Oyedotun, 2020). Research confirms that continuous professional development is vital to bridge these gaps, as institutional training programs enable teachers to adapt and innovate instructional strategies (Fraillon et al., 2019; UNESCO, 2023). Emergency transitions during the COVID-19 pandemic intensified challenges in teacher readiness and highlighted the central role of digital literacy in educational resilience (Ignacio et al., 2022; Sahin et al., 2022).

Technological Adaptability

Technological adaptability involves teachers' readiness to integrate digital innovations, sustain openness to change, and actively engage in professional growth. Studies indicate that adaptability is driven by access to ongoing training and robust institutional support (Zou et al., 2025). Educators who participate in professional development and regularly utilize digital platforms tend to be more adaptable in revising their instructional methods. Adaptability is also shaped by teacher motivation, collaborative learning, and mindset towards lifelong education (Hemajothi & Kumar Jain, 2022; OECD, 2025).

A global review concludes that adaptability is not simply a function of technical proficiency: mindset, resource availability, and mutual support are crucial factors (Stan, 2022). The rise of online and blended learning environments has made adaptability indispensable for delivering quality education under rapidly changing conditions.

Stress Coping Skills in Educational Technology

Teachers employ varied coping strategies in response to digital demands, including problem-focused, emotion-focused, social support, and positive reframing or disengagement mechanisms (Stan, 2022). Filipino studies highlight that strong professional and peer support networks help mitigate the negative impacts of digital transitions (Examining the Relationship, 2024). Emotional intelligence and supportive relationships are consistently cited as major contributors to improved coping outcomes (Managing Digital Stress, 2023).

Systematic reviews show that inadequate institutional support leads to heightened technostress, burnout, and reduced teaching effectiveness (Technostress among Teachers, 2025). Conversely, practical coping skills and structured organizational backing

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

promote resilience, lower stress, and improve teacher satisfaction in adapting to technology (Teacher Technostress and Coping Mechanisms, 2023).

The reviewed literature confirms the interplay among digital expertise, adaptability, and coping skills in fostering successful teacher engagement with technology. While significant progress has been documented, barriers such as insufficient training and uneven access persist. Sustained professional development, emotional support, and policy reforms that prioritize digital literacy are crucial for enhancing teacher well-being and technological adaptability in education.

III. Methodology

Research Design

This study utilized a quantitative correlational design to examine the predictive relationships between digital expertise, stress-coping skills, and technological adaptability among secondary school teachers. Data were collected through a paper-based survey comprising standardized and researcher-developed instruments, all rated on a 5-point Likert scale from "Strongly Disagree" to "Strongly Agree." A conceptual model guided the analysis, positing that digital expertise and coping skills jointly influence teachers' technological adaptability.

Participants of the Study

The participants consisted of 266 secondary school teachers from the Division of Bukidnon. A stratified random sampling approach was used to ensure proportional representation of teachers across public and private schools and across different geographic districts. The sampling frame included all secondary teachers listed in the 2024–2025 Division Directory.

Research Instrument and Validation

The survey questionnaire was patterned after the study of Estrella, G. et al. (2024), which measured three primary constructs: digital expertise, stress-coping skills, and technological adaptability. The instrument was carefully developed based on prior validated scales and relevant literature. Before administration, it underwent content validation by a panel of three experts in educational technology and research methodology. The experts evaluated each item for clarity, relevance, and alignment with the study objectives. Their feedback led to minor revisions in phrasing and item sequencing to improve comprehensibility and construct coverage.

After validation, the refined questionnaire was pilot-tested among a small group of teachers to check readability and response consistency. The instrument's internal consistency was evaluated using Cronbach's alpha, yielding an overall coefficient of 0.821, indicating good reliability.

Data Collection Procedure

Data were collected through a paper-based survey distributed personally to participating schools within the Division of Bukidnon. Each respondent was informed about the purpose of the study and provided written consent prior to answering the questionnaire. The instrument gathered information on demographic background, levels of digital expertise, coping strategies for stress, and measures of technological adaptability. The researchers retrieved completed questionnaires, encoded them, and analyzed them quantitatively using SPSS software, following secure data-handling procedures.

Statistical Technique Used

Descriptive statistics summarized the levels of digital expertise, stress-coping skills, and technological adaptability. Correlation analysis examined relationships among the constructs, while multiple regression analysis tested predictive effects. Results were reported with standardized coefficients (β), confidence intervals (95%), and thorough regression diagnostics, including variance inflation factors (VIF) to check for multicollinearity and residual analysis to ensure model assumptions were met.

To account for teachers being nested within schools, multilevel analysis was considered. Where theoretical grounds existed, interaction or moderation effects were tested to assess how coping skills influence the link between digital expertise and adaptability.

Ethical Consideration

All survey responses were anonymous. Researchers obtained informed consent from all participants prior to data collection. The study adhered to ethical guidelines for research involving human subjects.

Data Availability and Limitations

The anonymized dataset and coding procedures are accessible upon reasonable request from the researchers. The study's cross-sectional design limits causal inference; thus, future research is encouraged to adopt longitudinal or mixed-methods designs to validate and extend these findings. Furthermore, sustained monitoring of local professional development (PD) initiatives in Bukidnon is recommended to contextualize ongoing improvements in teachers' digital proficiency and adaptability.

IV. Results & Discussions

Table 1. Level of digital expertise among secondary school teachers.

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

Variable	Mean	Std. Deviation	Qualitative Interpretation
Technological Proficiency	3.79	0.50	Highly demonstrated
Attitudes Towards Online Teaching	3.73	0.51	Highly demonstrated
Access and Usage of Technology	3.76	0.52	Highly demonstrated
Adaptability and Continuous Learning	3.74	0.53	Highly demonstrated
Overall	3.76	0.52	Highly demonstrated

Rating Scale	Rating Range	Descriptive Interpretation	Qualitative Interpretation
1	1.00-1.50	Strong Disagree (SD)	Not demonstrated
2	1.51-2.50	Disagree (D)	Slightly demonstrated
3	2.51-3.50	Undecided (U)	Moderately demonstrated
4	3.51-4.50	Agree (A)	highly demonstrated
5	4.51-5.0	Strongly Agree (SA)	Very highly demonstrated

The data indicate that secondary school teachers in the Division of Bukidnon consistently exhibit high levels of digital expertise across all measured domains. The mean scores for Technological Proficiency (3.79), Attitudes Towards Online Teaching (3.73), Access and Usage of Technology (3.76), and Adaptability and Continuous Learning (3.74) all fall within the "High" category, indicating widespread agreement and preparedness to use digital tools for educational purposes. The overall mean of these indicators is 3.76, with a standard deviation of 0.52, suggesting that most teachers are confident and capable, with only minor variability in responses.

The high scores on all domains of digital expertise reflect a strong foundation among teachers for adapting to modern educational demands in technology-rich environments. The consistency of these results, as shown by the minimal spread in standard deviations, suggests that digital readiness is a shared trait within the division. This finding aligns with recent literature that emphasises the importance of digital literacy and continuous learning for effective teaching in contemporary settings (Abantas-Emji et al., 2024; UNESCO, 2023).

Supporting studies have shown that teacher confidence and positive attitudes toward online teaching contribute to more successful technology adaptation and integration in the classroom (IJORER, 2023). Bukidnon's teachers' high level of adaptability and ongoing commitment to learning further suggest that professional development initiatives and school-based support programs are contributing factors to this preparedness.

Thus, the results underscore the division's strengths in building a digitally competent and highly adaptive teaching workforce. As digital innovation in education continues to evolve, ongoing support and training will remain vital to sustaining these gains and addressing future technological challenges.

Table 2. Level of stress coping skills among secondary school teachers.

Variable	Mean	Std. Deviation	Qualitative Interpretation
Problem-Focused Coping	3.67	0.52	Highly demonstrated
Emotion-Focused Coping	3.67	0.53	Highly demonstrated
Social Support Coping	3.70	0.51	Highly demonstrated
Avoidance/Disengagement Coping (Positive Reframe)	3.65	0.54	Highly demonstrated
Overall	3.67	0.53	Highly demonstrated

Rating Scale	Rating Range	Descriptive Interpretation	Qualitative Interpretation
1	1.00-1.50	Strong Disagree (SD)	Not demonstrated
2	1.51-2.50	Disagree (D)	Slightly demonstrated
3	2.51-3.50	Undecided (U)	Moderately demonstrated
4	3.51-4.50	Agree (A)	highly demonstrated

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

5	4.51-5.0	Strongly Agree (SA)	Very highly demonstrated

The findings of this study reveal that secondary school teachers in the investigated division consistently demonstrate high levels of stress-coping skills across all measured domains. As summarized in Table 1, mean scores for problem-focused coping (M = 3.67, SD = 0.52), emotion-focused coping (M = 3.67, SD = 0.51), social support coping (M = 3.70, SD = 0.51), avoidance/disengagement coping (positive reframe) (M = 3.65, SD = 0.54) with the overall mean for stress coping skills is M = 3.67, SD = 0.53.

These results corroborate national and international studies that highlight the importance of robust coping skills for teacher adaptation in rapidly digitizing educational settings. Local research in the Philippines highlights the importance of professional collaboration and emotional support networks in promoting resilience and mitigating stress associated with technological demands (Alpuerto, 2022; Examining the Relationship, 2024). Similar trends are evident globally, with teachers across diverse contexts relying on problem-solving strategies, social support, and emotional regulation to mitigate technostress and maintain instructional effectiveness (Stan, 2022; Teacher Technostress and Coping Mechanisms, 2023).

In particular, the consistently "High" ratings across all coping skill domains reflect teachers' capacity to draw on multiple forms of support and adaptive strategies when confronting digital challenges. This aligns with the literature, which emphasizes that access to peer networks, ongoing professional development, and structured organizational support substantially improve coping outcomes and teacher satisfaction (Managing Digital Stress, 2023; Ahmad, 2025).

The data suggest that Filipino secondary teachers are not only equipped with a variety of coping skills but also actively apply them amid technological transitions. These findings reinforce arguments in the reviewed literature that effective coping is foundational to enhancing teachers' digital expertise and technological adaptability. Institutions aiming to strengthen teacher preparedness should continue to invest in comprehensive support systems and development programs, as documented barriers—such as insufficient training and uneven resource distribution—can undermine potential gains in teacher well-being and performance (Kilag et al., 2024; Technostress among Teachers, 2025).

Therefore, the high levels of problem-focused, emotion-focused, social support, and avoidance coping observed in this study indicate that secondary school teachers possess resilient adaptation capacities, which are essential for the successful integration of technology in education. Sustained institutional effort to nurture these coping skills, as recommended in both local and international studies, remains critical for advancing technological adaptability and promoting quality teaching outcomes.

Table 3. Level of Technological Adaptability among Secondary School Teachers.

Variable	Mean	Std. Deviation	Qualitative Interpretation
Digital Skills Proficiency	3.72	0.39	Highly demonstrated
Attitudes Towards Digital Integration	3.72	0.38	Highly demonstrated
Adaptability to Digital Teaching Environment	3.73	0.39	Highly demonstrated
Participation in Professional Development	3.71	0.38	Highly demonstrated
Overall	3.67	0.53	Highly demonstrated

Rating Scale	Rating Range	Descriptive Interpretation	Qualitative Interpretation
1	1.00-1.50	Strong Disagree (SD)	Not demonstrated
2	1.51-2.50	Disagree (D)	Slightly demonstrated
3	2.51-3.50	Undecided (U)	Moderately demonstrated
4	3.51-4.50	Agree (A)	highly demonstrated
5	4.51-5.0	Strongly Agree (SA)	Very highly demonstrated

The findings show that secondary school teachers demonstrate high levels of technological adaptability across all measured domains. In particular, the mean scores for each domain are as follows: digital skills proficiency (M = 3.72, SD = 0.39), attitudes towards digital integration (M = 3.72, SD = 0.38), adaptability to digital teaching environment (M = 3.73, SD = 0.39), and participation in professional development (M = 3.71, SD = 0.38). All scores fall within the "Agree" level and are classified as "Highly demonstrated," indicating strong technological adaptability among the teachers surveyed. Thus, overall technological adaptability is M = 3.72, SD = 0.39.

These results are consistent with studies emphasising the importance of digital skills and positive attitudes towards technological integration in promoting effective teaching and learning. The literature from the Philippines highlights that teachers with advanced ICT skills and positive dispositions towards technology are better equipped to engage learners and deliver quality education, especially in remote and blended learning contexts (Abantas-Emji et al., 2024; IJORER, 2023). International research reinforces

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

that participation in ongoing professional development programs and adaptability to new digital teaching environments are critical for educational resilience and innovation (Fraillon et al., 2019; UNESCO GEM Report, 2023).

The consistently high mean scores and low standard deviations observed suggest that teachers not only possess high levels of technological adaptability but also exhibit uniform preparedness, minimising disparities in digital readiness among respondents. This aligns with findings that institutional support, access to professional growth opportunities, and collaborative learning environments foster greater teacher adaptability, confidence, and openness to change (Hemajothi & Kumar Jain, 2022; OECD, 2025; Sahin et al., 2022).

These outcomes further support the existing literature, which suggests that technological adaptability development is a multifaceted process influenced by skill proficiency, attitudes, continuous learning, and participation in institutional development activities (Stan, 2022; Zou et al., 2025). The data suggest that teachers in the studied school division are well-positioned to meet the demands of digital education; however, continued investment in professional development and support remains essential to sustain teacher growth and achieve high-quality teaching outcomes.

Therefore, these findings highlight the importance of sustained institutional investment in digital integration and ongoing teacher training, as advocated in both national and international research, to ensure continued educational innovation and resilience in the face of technological change.

Table 4. Correlation analysis of secondary school teachers' technological adaptability, digital expertise, and stress coping skills.

VARIABLE	CORRELATION COEFFICIENT	PROBABILITY (p-value)
Digital Expertise	0.637	0.000**
Technological Proficiency	0.573	0.000**
Attitudes towards online teaching	0.578	0.000**
Access and usage of technology	0.544	0.000**
Adaptability and continuous learning	0.627	0.000**
Stress Coping Skills	0.656	0.000**
Problem-focused coping	0.601	0.000**
Emotional-focused coping	0.599	0.000**
Social support coping	0.545	0.000**
Avoidance/Disengagement coping	0.602	0.000**

As indicated in Table 4, there was and strong, significant positive correlation between overall digital expertise ($r = 0.637$, $p < 0.01$) and technological adaptability. All dimensions of digital expertise also had significant positive correlations with technological adaptability, ranging from $r = 0.544$ to $r = 0.627$ (all $p < 0.01$). Stress coping skills were also strongly correlated with technological adaptability ($r = 0.656$, $p < 0.01$). Each stress coping dimension —problem-focused, emotion-focused, social support, and avoidance/disengagement coping — showed significant positive correlations, with coefficients ranging from $r = 0.545$ to $r = 0.602$ (all $p < 0.01$). These findings suggest that higher levels of digital expertise and more effective stress-coping skills are consistently associated with greater technological adaptability among secondary school teachers in the Division of Bukidnon.

These results align with the national and international literature, which highlights that teachers' digital expertise and coping abilities play crucial roles in their successful adaptation to technology-enhanced education. Previous studies in the Philippines and abroad have documented how higher technological proficiency and positive attitudes foster teacher engagement, confidence, and the ability to handle technological change (Gonzales & Bala, 2021; Kilag et al., 2024; Stan, 2022; UNESCO GEM Report, 2023). Similarly, the role of effective coping strategies in reducing technostress and supporting adaptive responses to digital challenges is strongly supported by existing research (Adu et al., 2022; Technostress among Teachers, 2025).

The pronounced and significant correlations identified in this study suggest that both domains—digital expertise and stress coping skills—are instrumental in facilitating technological adaptability among teachers. These findings align with the existing literature in highlighting the importance of ongoing professional development, emotional and institutional support, and continuous learning as critical factors for teacher well-being and resilience (Ahmad, 2025; Lipayon, 2020; Gamad, 2025).

Overall, the data strongly indicate that improvements in digital expertise and the development of effective coping mechanisms are closely linked to enhanced adaptability in digital teaching contexts. These results underline the urgent need for sustained investment in teacher training, emotional support structures, and enabling environments, consistent with international calls for advancing digital competence and adaptability in education (Trust et al., 2022; Fraillon et al., 2019).

Table 5. Variables that best predict students' Problem-solving performance

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

Predictor Variables	β (Beta Coefficient)	t-value	p-value	VIF
(Constant)	0.770	7.339	.000	
Technological Proficiency	0.077	2.188	.030	3.44
Attitudes toward online teaching	0.046	4.387	.000	3.24
Adaptability and continuous learning	0.120	3.383	.001	3.85
Problem-focused coping	0.142	4.466	.000	3.00
Emotional-focused coping	0.096	3.060	.002	3.08
Social support coping	0.098	3.190	002	2.72
Avoidance/Disengagement coping	0.070	2.318	.021	2.90
$R = 0.876$ $R^2 = 0.768$ $F= 106.062$ Sig. = 0.000				

The overall regression model yielded a strong multiple correlation coefficient of R = 0.876 and an adjusted coefficient of determination of $R^2 = 0.768$, indicating that approximately 76.8% of the variance in technological adaptability can be explained by the combined effect of the predictor variables. The F-statistic (106.062, p = 0.000) confirms that the regression model is statistically significant and that the predictor variables collectively explain technological adaptability.

The regression equation for predicting technological adaptability is:

Y = 0.770 + 0.077(X1) + 0.046(X2) + 0.120(X3) + 0.142(X4) + 0.096(X5) + 0.098(X6) + 0.070(X7)

Where: 0.770 is constant

Y = technological adaptability

X1 = Technological Proficiency

X2 = Attitudes toward online teaching

X3 = Adaptability and continuous learning

X4 = Problem-focused coping

X5 = Emotion-focused coping

X6 = Social support coping

X7 = Avoidance/Disengagement coping

As summarised in Table 4, significant positive predictors included technological proficiency ($\beta = 0.077, t = 2.188, p = .030, \text{VIF} = 3.44$), adaptability and continuous learning ($\beta = 0.120, t = 3.383, p = .001, \text{VIF} = 3.85$), problem-focused coping ($\beta = 0.142, t = 4.466, p < .001, \text{VIF} = 3.00$), emotional-focused coping ($\beta = 0.096, t = 3.060, p = .002, \text{VIF} = 3.08$), social support coping ($\beta = 0.098, t = 3.190, p = .002, \text{VIF} = 2.72$), and avoidance/disengagement coping ($\beta = 0.070, t = 2.318, p = .021, \text{VIF} = 2.90$). Attitudes toward online teaching had a positive but smaller standardised effect ($\beta = 0.046, t = 4.387, p < .001, \text{VIF} = 3.24$), indicating a weaker yet significant association. All predictors exhibited VIF values well below the threshold of 5, indicating no multicollinearity.

Model diagnostics, including residual analysis and standard probability plots, showed no violations of the linearity, normality, or homoscedasticity assumptions. Multilevel modelling, which accounted for teacher clustering within schools, confirmed the strength of the findings, as the results were consistent with standard regression output.

These findings align with extensive literature emphasising the multifaceted nature of teacher adaptation to digital environments. Research consistently shows that continuous professional development, positive attitudes toward learning, and technological proficiency are fundamental to successful digital integration (Fraillon et al., 2019; UNESCO GEM Report, 2023; Ahmad, 2025). The prominence of problem-focused coping as a predictor supports studies highlighting that teachers who actively engage with challenges, seek solutions, and maintain goal-oriented approaches demonstrate greater resilience and adaptability in technology-rich contexts (Stan, 2022; Teacher Technostress and Coping Mechanisms, 2023).

The substantial explained variance ($R^2 = 0.768$) indicates that both digital expertise and stress coping skills are essential components of technological adaptability, confirming theoretical frameworks that position teacher adaptation as dependent on both technical competence and psychological resilience (Adu et al., 2022; Managing Digital Stress, 2023). The significant role of social support in coping further reinforces Philippine and international studies that emphasise the importance of collaborative networks and peer support in fostering teacher confidence and reducing technostress (Alpuerto, 2022; Examining the Relationship, 2024).

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

Therefore, the regression analysis demonstrates that technological adaptability among secondary school teachers is best predicted by a combination of digital expertise dimensions and stress-coping strategies, with problem-focused coping and adaptability/continuous learning as the most potent individual predictors. These results underscore the need for comprehensive professional development programs that address both technical skills and emotional resilience, aligning with current literature's recommendations for holistic approaches to teacher preparation and support in digital education contexts.

V. Conclusion

The results of this research revealed that secondary school teachers in the Division of Bukidnon were well-prepared and highly adaptable to the technological demands present in education at the time of study. Teachers consistently demonstrated strong digital expertise, showing confidence in their ability to utilise digital tools, adapt teaching methods, and engage in continuous learning. This digital competence was supported by their positive attitudes towards innovation and active participation in professional development, suggesting that the instructional workforce was ready to meet the challenges of technology integration.

It was also found that the teachers possessed highly developed coping skills, enabling them to manage stress and thrive amid rapid changes in their work environment. They actively employed problem-solving, emotional regulation, social support, and positive reframing to overcome the obstacles posed by digital transitions. The collaborative spirit among educators, combined with structured support from schools and professional programs, played a vital role in building resilience and sustaining effective teaching.

Throughout the investigation, it became evident that both digital expertise and stress-coping skills were closely linked to technological adaptability. Teachers who possessed a strong foundation in these areas were better equipped to adopt new technologies, adapt to evolving educational practices, and maintain their well-being. The findings underscored the need for holistic approaches in teacher preparation, emphasising the importance of technical skills, emotional resilience, and ongoing professional development.

Furthermore, continued investment in professional development, emotional support systems, and collaborative networks was found to be critical for maintaining and strengthening teacher adaptability in the face of ongoing educational innovations. By fostering both technical competence and psychological readiness, educational institutions ensured that teachers remained effective, engaged, and resilient as they led students into the digital age.

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ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

Appendix

Questionnaire on Digital Expertise and Stress Coping Skills as Predictors of Technological Adaptability in Secondary

Demographic Profile

Please fill out the following information. These will be used solely for data organization and analysis. Your information will be kept secure, and all identifiers will be removed from reports and from your responses at the end of this study.

Name (Optional): _____

Name of School: _____

No. of years teaching: _____

Gender: M ☐ F ☐

Age: _____

Part I. Digital Expertise

Directions: Please read each statement carefully and **encircle** the number that corresponds to your choice.

Use the following scale:

5- Strongly Agree

4- Agree

3- Undecided

2- Disagree

1- Strongly Disagree

A. Technological Proficiency	5	4	3	2	1
1. I am confident in using instructional digital tools for teaching.	5	4	3	2	1
2. I can troubleshoot common technical issues independently.	5	4	3	2	1
3. I am proficient in using online learning management systems such as Google Classroom, etc.	5	4	3	2	1
4. I can create digital content for my lessons effectively.	5	4	3	2	1
5. I can integrate multimedia resources into my teaching.	5	4	3	2	1
6. I am skilled in using video conferencing tools for classes.	5	4	3	2	1
7. I can navigate educational applications and platforms	5	4	3	2	1
8. I update my digital skills regularly through training or self-study.	5	4	3	2	1
9. I can customize digital tools to suit my teaching needs.	5	4	3	2	1
10. I adapt quickly to new educational technologies.	5	4	3	2	1

B. Attitudes Towards Online Teaching	5	4	3	2	1
1. I believe online teaching improves student engagement when used effectively.	5	4	3	2	1
2. I feel the positive effect of using technology in conducting classes.	5	4	3	2	1
3. I believe online teaching can be as effective as face-to-face teaching when properly designed.	5	4	3	2	1
4. I am motivated to explore innovative teaching methods through technology-aided instruction.	5	4	3	2	1
5. I perceive online teaching as a valuable skill for my professional growth.	5	4	3	2	1
6. I am comfortable in managing student interactions online.	5	4	3	2	1

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

7. I believe technology enhances collaboration among students.	5	4	3	2	1
8. I see online teaching as an essential component of modern education.	5	4	3	2	1
9. I am willing to invest time to improve my online teaching skills.	5	4	3	2	1
10. I enjoy experimenting with digital pedagogical strategies.	5	4	3	2	1

C. Access and Usage of Technology	5	4	3	2	1
1. I have easy access to reliable internet for teaching purposes.	5	4	3	2	1
2. I use digital devices regularly during my teaching activities.	5	4	3	2	1
3. My institution provides sufficient and updated technological resources to support teaching.	5	4	3	2	1
4. I consistently utilize educational apps and platforms to support lessons.	5	4	3	2	1
5. I collaborate with colleagues using digital communication tools.	5	4	3	2	1
6. I encourage students to use technology for learning.	5	4	3	2	1
7. I stay updated with new digital teaching tools and resources.	5	4	3	2	1
8. My students have sufficient access to technology required to participate in lessons.	5	4	3	2	1
9. I use digital tools effectively to enhance learning outcomes.	5	4	3	2	1
10. I feel supported by my school administration in using technology.	5	4	3	2	1

D. Adaptability and Continuous Learning	5	4	3	2	1
1. I adjust my teaching methods when new technology is introduced.	5	4	3	2	1
2. I seek professional development opportunities related to digital teaching.	5	4	3	2	1
3. I am open to feedback on my use of technology in the classroom.	5	4	3	2	1
4. I experiment with new digital tools to improve student learning.	5	4	3	2	1
5. I reflect on my digital teaching practices regularly to enhance my teaching.	5	4	3	2	1
6. I can handle unexpected technical problems during teaching sessions calmly	5	4	3	2	1
7. I adapt to different students' technological skill levels in my lessons and provide appropriate support.	5	4	3	2	1
8. I balance traditional and digital teaching methods effectively.	5	4	3	2	1
9. I am committed to lifelong learning in digital education.	5	4	3	2	1
10. I share my digital expertise with colleagues to foster a technology friendly teaching environment.	5	4	3	2	1

Part Ii. Stress Coping Skills

Directions: Please read each statement carefully and **encircle** the number that corresponds to your choice.

Use the following scale:

5- Strongly Agree

4- Agree

3- Undecided

2- Disagree

1- Strongly Disagree

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

A. Problem-Focused Coping	5	4	3	2	1
1. I effectively find solutions to teaching challenges that cause stress.	5	4	3	2	1
2. I organize my tasks well to manage my workload efficiently.	5	4	3	2	1
3. I prioritize problems and address them one at a time confidently.	5	4	3	2	1
4. I seek help and advice from colleagues when needed.	5	4	3	2	1
5. I break complex tasks into manageable steps successfully.	5	4	3	2	1
6. I set realistic goals to help reduce work-related stress.	5	4	3	2	1
7. I use time management strategies to meet deadlines consistently.	5	4	3	2	1
8. I take proactive steps to avoid situations that trigger stress.	5	4	3	2	1
9. I adjust my teaching methods to handle stressful situations effectively.	5	4	3	2	1

B. Emotion-Focused Coping	5	4	3	2	1
1. I maintain a positive outlook even when faced with work stress.	5	4	3	2	1
2. I share my feelings about stressful situations with trusted individuals.	5	4	3	2	1
3. I practice relaxation techniques to calm myself after stressful days.	5	4	3	2	1
4. I regularly use mindfulness or meditation to manage stress.	5	4	3	2	1
5. I focus on what I can control rather than worrying about the uncontrollable.	5	4	3	2	1
6. I enjoy hobbies or activities that help me reduce stress.	5	4	3	2	1
7. I accept aspects of my work situation that I cannot change.	5	4	3	2	1
8. I use humor to lighten stressful moments.	5	4	3	2	1
9. I maintain a healthy perspective and do not let work stress overwhelm me.	5	4	3	2	1

C. Social Support Coping	5	4	3	2	1
1. I rely on family and friends for support when I feel stressed.	5	4	3	2	1
2. I openly discuss work challenges with coworkers to feel better.	5	4	3	2	1
3. I actively participate in teacher support groups or communities.	5	4	3	2	1
4. I collaborate with colleagues to share workload during stressful periods.	5	4	3	2	1
5. I communicate honestly about my stress and ask for help when needed.	5	4	3	2	1
6. I build strong supportive relationships with fellow teachers.	5	4	3	2	1
7. I attend professional workshops to connect with peers and alleviate stress.	5	4	3	2	1
8. I share effective coping strategies with my colleagues.	5	4	3	2	1
9. I seek emotional support when work becomes challenging.	5	4	3	2	1

D. Avoidance/Disengagement Coping (Positive Reframe)	5	4	3	2	1
1. I take breaks and short rests to refresh myself from work stress.	5	4	3	2	1
2. I manage stressful situations by focusing on constructive distractions.	5	4	3	2	1
3. I know when to step away from stressful work interactions for mental clarity.	5	4	3	2	1
4. I practice healthy emotional distancing to prevent burnout.	5	4	3	2	1
5. I set boundaries to avoid taking on too much extra work.	5	4	3	2	1
6. I prioritize self-care to maintain balance during stressful times.	5	4	3	2	1

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

7. I use breaks effectively to regain focus and reduce stress.	5	4	3	2	1
8. I maintain a positive distance from work stress to remain productive.	5	4	3	2	1
9. I strategically disengage from non-essential stressors to protect my well-being.	5	4	3	2	1

Part Iii. Technological Adaptability

Directions: Please read each statement carefully and **encircle** the number that corresponds to your choice.

Use the following scale:

5- Strongly Agree

4- Agree

3- Undecided

2- Disagree

1- Strongly Disagree

A. Digital Skills Proficiency	5	4	3	2	1
1. I can effectively use digital learning tools in my teaching.	5	4	3	2	1
2. I am confident in using educational platforms like Google Classroom and Zoom or equivalent tools.	5	4	3	2	1
3. I can create and share instructional digital content with my students.	5	4	3	2	1
4. I am able to troubleshoot common technical problems during digital or online teaching.	5	4	3	2	1
5. I update regularly my digital skills through training or self-study.	5	4	3	2	1
6. I use multimedia tools to enhance my lessons.	5	4	3	2	1
7. I adapt digital tools to suit the needs of my students	5	4	3	2	1
8. I manage digital communication effectively with students and parents.	5	4	3	2	1
9. I can use with various digital assessment tools effectively.	5	4	3	2	1

B. Attitudes Towards Digital Integration	5	4	3	2	1
1. I believe integrating technology improves teaching effectiveness.	5	4	3	2	1
2. I am motivated to learn and apply new digital teaching methods.	5	4	3	2	1
3. I view digital literacy as essential for modern teaching.	5	4	3	2	1
4. I am open to experimenting with new educational technologies.	5	4	3	2	1
5. I perceive digital transformation as a positive change in education.	5	4	3	2	1
6. I feel confident in adapting to technological advancements in teaching and learning.	5	4	3	2	1
7. I see digital tools as beneficial for inclusive education.	5	4	3	2	1
8. I am willing to invest time in mastering the use of digital resources.	5	4	3	2	1
9. I encourage students to use digital resources for learning.	5	4	3	2	1

C. Adaptability to Digital Teaching Environment	5	4	3	2	1
1. I can easily adjust to changes in teaching brought by technology updates.	5	4	3	2	1
2. I can teach effectively in both face-to-face and online environments.	5	4	3	2	1

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue X, October 2025

3. I manage unexpected technical disruptions during lessons calmly.	5	4	3	2	1
4. I adapt my lesson plans to incorporate digital content.	5	4	3	2	1
5. I balance digital and traditional teaching methods effectively.	5	4	3	2	1
6. I keep pace with educational technology trends relevant to my subject.	5	4	3	2	1
7. I seek feedback to improve my digital teaching strategies.	5	4	3	2	1
8. I collaborate with colleagues using digital tools.	5	4	3	2	1
9. I adapt communication styles for online interactions with students.	5	4	3	2	1

D. Participation in Professional Development	5	4	3	2	1
1. I participate in training programs to enhance my digital teaching skills.	5	4	3	2	1
2. I actively seek opportunities for ongoing professional development in technology.	5	4	3	2	1
3. I apply knowledge gained from digital skills training to my teaching.	5	4	3	2	1
4. I encourage my peers to engage in technology-related training.	5	4	3	2	1
5. I believe continuous learning is necessary to keep up with digital teaching demands.	5	4	3	2	1
6. I reflect on my teaching practices to integrate digital improvements.	5	4	3	2	1
7. I access online resources to support my professional growth.	5	4	3	2	1
8. I feel supported by my institution in pursuing digital professional development.	5	4	3	2	1
9. I use feedback from training to improve student learning outcomes.	5	4	3	2	1