The Relationship of Instructional Innovation to the Digital Expertise of Teachers Assigned in Marginalized Schools

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ABSTRACT

This study explores the relationship between instructional innovation and digital expertise among teachers assigned in marginalized schools. The study was conducted in Don Carlos III District, Don Carlos, Bukidnon with 263 teachers. The instruments patterned to the existing researches and were used with permission. We focused on four key areas of instructional innovation: technology integration in instruction, pedagogical adaptability, creative content delivery, and the collaborative instructional practices. Digital expertise was examined through measures of digital tool proficiency, instructional design using technology, and digital communication and collaboration. The findings revealed that teachers Highly Practiced instructional innovation in all four aspects. Also, teachers exhibit "High Digital Expertise" in three aspects. The correlation analysis revealed a significant relationship with instructional innovation and digital expertise of tenured teachers assigned in marginalized schools. It implies that teachers who practice instructional innovation tend to exhibit better digital tool proficiency, instructional design using technology, and digital communication and collaboration more effectively. A sustained professional development program is recommended that puts emphasis on both instructional innovation and digital competency of tenured teachers in marginalized setting. Collaboration is also encouraged in order to observe and adapt the best practices of other teachers in enhancing learner outcomes.

Keywords: Instructional Innovation, Digital Expertise, Tenured Teachers

INTRODUCTION

The integration of technology in education has become a common feature in the improvement of teaching effectiveness and enhanced learning outcomes. In marginalized schools, which are often characterized by limited resources and systemic constraints, the capacity of tenured teachers to apply digital practices is a challenge. Digital expertise is a fundamental skill that teachers are expected to practice. The proliferation of various advances in technology has shaped the educational landscape, especially in the use of digital technologies in instruction. Despite these advancements, there is an imbalanced access to digital proficiency among Filipino Teachers. There are varying levels of competence especially in digital literacies (Lagos and Nabos, 2023). Teachers in marginalized schools face persistent challenges in integrating digital tools into instruction. These schools often lack stable internet, updated devices, and structured training programs that hinders the realization of digital transformation in education. Tenured teachers, despite their experience, report low confidence in using technology for teaching (Arzadon & Colicol, 2024).

Instructional innovation is the application of teaching strategies supported by technology. Nowadays, it is a medium for the enhancement of teaching quality and learner engagement. Teachers who design technology-integrated lessons often report higher confidence and skill (Bejasa, 2025). In multigrade schools, digital tools help manage diverse learners, but only when teachers receive targeted support (UNICEF Philippines, 2025). The OECD (2023) observed that digital access to technologies requires not only access to tools but also includes the empowerment of teachers through capacity-building initiatives that promote inclusive, sustainable, and culturally relevant.

This study determined the significant relationship between instructional innovation practices contributes to the digital expertise of tenured teachers in marginalized schools in Don Carlos III district, Schools Division of Bukidnon, for the school year 2025-2026.

This research aimed to answer the following problems:

1. What is the level of teachers' instructional innovation in terms of:

a. Technology integration in instruction;

b. Pedagogical adaptability;

c. Creative content delivery; and

d. collaborative instructional practices?

2. What is the level of teachers' digital expertise in terms of:

a. digital tool proficiency;

b. instructional design using technology; and

c. digital communication and collaboration?

3. Is there any significant relationship between instructional innovation to digital expertise of tenured teachers in marginalized schools?

METHODS

This chapter outlines the methodology used in this study, focusing on how we explored the relationship between instructional innovation and their digital expertise. To provide a solid foundation for our approach, we reviewed existing research on these topics. Previous studies have shown that instructional innovation is important in teaching as it improves instructional quality and learner outcomes. For instance, Bernardo (2025) stressed that innovative teaching strategies improved student engagement, while Abella and Dela Rosa (2023) emphasized that digital expertise of teachers makes learners to be more independent and more advanced in terms of the use of digital resources.

We employed a descriptive-correlational quantitative research design, which allowed us to gather data revealing important relationships between teachers' instructional innovation and their digital expertise. The study involved 263 teachers from both elementary and secondary schools in Don Carlos III District, Schools Division of Bukidnon for the school year 2025-2026.

To collect data, we used standardized survey questionnaires, which were distributed to the teachers while ensuring confidentiality and providing ample time for completion. We received formal approval for our research title and instruments from our research adviser and the school heads before commencing the data collection process for the school year 2025–2026. We utilized two adopted questionnaires from previous studies: the first, adapted from Salavacion and Satojito (2025), assessed instructional innovation, including Technology Integration in Instruction, Pegadogical Adaptability, Creative Content Delivery, and collaborative instructional practives, each with ten indicators. The second questionnaire, adapted from Bagona and Paglinawan (2024), evaluated teachers' digital expertise through digital tool proficiency, instructional design using technology, and digital communication and collaboration.

Before full distribution, we piloted the questionnaires with 25 secondary teachers at Kimanait National High School in Pangantucan South District to ensure reliability, obtaining a high Cronbach's alpha of 0.983. After collecting the data, we analyzed it using descriptive statistics to assess levels of instructional innovation and digital expertise of tenured teachers in marginalized schools. To examine the relationships between these

variables, we employed Spearman Rho correlation, as the data were not normally distributed. Through this structured methodology, we aimed to gather meaningful insights into how instructional innovation impacts teachers' digital expertise, ultimately benefiting both teachers and their students.

RESULTS AND DISCUSSION

This chapter contains the presentation, analysis, and interpretation of data gathered from the participants. The order of presentation is based on the order of specific objectives of the study.

Table 1 shows the level of tenured teachers' instructional innovation in terms of Technology Integration in Instruction. The level of instructional innovation is shown through descriptive statistics, specifically the mean.

Table 1. Level of the tenured teachers' Instructional Innovation in terms of Technology Integration in Instruction.

Indicators	Mean	Qualitative Interpretation
1. I integrate multimedia resources (*videos, simulations, etc*.) into my teaching.	4.44	Highly Practiced
2. I encourage students to use technology for collaborative learning.	4.42	Highly Practiced
3. I adapt my teaching strategies based on available digital tools.	4.38	Highly Practiced
4. I regularly use digital platforms to deliver lessons.	4.14	Highly Practiced
5. I explore new digital tools to enhance instructional delivery.	4.13	Highly Practiced
6. I participate in training programs focused on educational technology.	4.06	Highly Practiced
7. I assess student performance using digital tools.	3.97	Highly Practiced
8. I design lessons that utilize educational apps or software (*e.g. Canva, Khan academy, Edmodo, etc.).*	3.78	Highly Practiced
9. I am confident in troubleshooting basic tech issues during class.	3.46	Moderately Practiced
10. I use learning management systems (*e.g., Google Classroom, Moodle*) to manage class activities.	3.27	Moderately Practiced
OVERALL MEAN	4.01	Highly Practiced

Table 1 presented the results that indicate a high level of instructional innovation among teachers, particularly in terms of technology integration in instruction. This is crucial for improving learning outcomes of the learners when paired with effective teaching strategies.

The overall mean score of 4.01 categorized the teachers' technology integration in instruction as "highly practiced." This implies that teachers are consistently and confidently integrating technology in teaching and possess the skills and confidence to use technology effectively in the classroom.

The highest mean score of 4.40 indicated that teachers integrate multimedia resources in teaching. This suggested a high level of engagement in integrating technology into their instructional practices. The lowest mean score of 3.27 indicated as "moderately practiced" by teachers is the use of management systems in managing their class activities. This implies that while digital tools are being integrated in the teaching process, their full potential is underutilized. Also, learning management systems are not so much utilized as the internet connectivity in marginalized school is pose a great challenge.

The results in Table 1 was supported with several established studies on instructional innovation in terms of technology integration in instruction. The study of Singzon (2024) supports this finding, as it pointed out that an increased integration of technology is associated with improved teaching practices. Similarly, Regañon (2024) pointed out that the positive attitude of teachers towards technology integration, they can deliver technology-rich teaching strategies. Additionally, when technology is effectively used, teachers are more likely to adapt teaching methods which enhances learner engagement and outcomes.

Table 2 shows the level of the tenured teachers' Instructional Innovation in terms of Pedagogical Adaptability.

Table 2. Level of the tenured teachers' Instructional Innovation in terms of Pedagogical Adaptability.

Indicators	Mean	Qualitative Interpretation
1. I am open to changing my teaching approach when needed.	4.54	Highly Practiced
2. I adapt my teaching based on the availability of resources.	4.48	Highly Practiced
3. I reflect on my teaching practices to improve future lessons.	4.48	Highly Practiced
4. I experiment with different teaching methods to improve engagement.	4.19	Highly Practiced
5. I incorporate student feedback to adjust my instructional strategies.	4.19	Highly Practiced
6. I use differentiated instruction to accommodate varying abilities.	4.12	Highly Practiced
7. I modify lesson plans to suit diverse learning styles.	4.01	Highly Practiced
8. I integrate project-based learning into my instruction.	4.01	Highly Practiced
9. I revise instructional materials to suit online or blended learning formats.	3.98	Highly Practiced
10. I use flipped classroom strategies when appropriate.	3.46	Moderately Practiced
OVERALL MEAN	4.15	Highly Practiced

Table 2 presents the level of instructional innovation in terms of pedagogical adaptability.

The data from Table 2 with the overall mean of 4.15 revealed that teachers highly practice instructional innovation in terms of pedagogical adaptability, indicating that teachers are capable of adjusting teaching strategies, delivery of the lessons, and classroom management styles to meet the diverse needs of the learners.

The highest- rated indicator is " I am open to changing my teaching approach when needed," with a mean score of 4.54. This is closely followed by " I adapt my teaching based on the availability of resources.", with a mean score of 4.48. The lowest mean score is 3.46 which is "I use flipped classroom strategies when appropriate" showed a moderate level of pedagogical adaptability of teachers.

The results in Table 2 were supported with the study of Chandraja et. al. (2024) emphasized that teachers who utilize flexible teaching strategies like flipped classrooms, demonstrated higher levels of adaptability. Additionally, Cailo et. al. (2025) emphasized that when teachers display high levels of pedagogical adaptability, this allows them to sustain effective teaching despite challenges in the classroom.

Table 3 showed the level of tenured teachers' Instructional Innovation in terms of Creative Content Delivery.

Table 3. Level of the tenured teachers' Instructional Innovation in terms of Creative Content Delivery.

Indicators	Mean	Qualitative Interpretation
1. I use visual aids creatively to enhance understanding.	4.39	Highly Practiced
2. I design interactive activities to reinforce learning.	4.19	Highly Practiced
3. I use humor and relatable examples to maintain student interest.	4.19	Highly Practiced
4. I use role-playing or simulations to deepen learning experiences.	4.09	Highly Practiced
5. I vary my presentation styles to maintain engagement.	4.09	Highly Practiced
6. I design thematic lessons that connect with real-world issues.	4.03	Highly Practiced
7. I incorporate gamification elements into my lessons.	3.93	Highly Practiced
8. I use storytelling techniques to explain complex concepts.	3.92	Highly Practiced
9. I encourage students to create their own digital content.	3.81	Highly Practiced
10. I create original digital content (e.g., videos, infographics) for instruction.	3.53	Highly Practiced
OVERALL MEAN	4.02	Highly Practiced

Table 3 presents the level of teachers' instructional innovation in terms of creative content delivery. The results indicate a high level of teachers' instructional innovation in terms creative content delivery, with an overall mean score of 4.02, interpreted as "Highly Practiced." This suggests that teachers engage in teaching strategies that stimulates curiosity and deeper understanding among their learners.

The high mean scores for indicators such as "I use visual aids creatively to enhance understanding" (4.39) highlights creativity of teachers in the preparation and utilization of visual aids to enhance understanding of learners.

The result in Table 3 is supported by the findings of Dellegue and Galigao (2025) where it was emphasized that when teachers employ creative teaching strategies, it will enhance the academic achievement and an increase in classroom participation among diverse learners.

Table 4 showed the level of the tenured teachers' Instructional Innovation in terms of Collaborative Instructional Practices.

Table 4. Level of the tenured teachers' Instructional Innovation in terms of Collaborative Instructional Practices.

Indicators	Mean	Qualitative Interpretation
1. I participate in professional learning communities focused on instructional improvement.	4.44	Highly Practiced
2. I attend workshops or webinars on instructional innovation.	4.35	Highly Practiced
3. I collaborate with colleagues to design innovative lesson plans.	4.19	Highly Practiced
4. I seek feedback from peers to refine my teaching methods.	4.14	Highly Practiced

5. I co-teach or team-teach when opportunities arise.	4.11	Highly Practiced
6. I collaborate with external experts to enhance instructional delivery.	4.11	Highly Practiced
7. I engage in peer mentoring to improve instructional strategies.	4.10	Highly Practiced
8. I share best practices and digital resources with peers.	4.03	Highly Practiced
9. I contribute to school-wide initiatives on digital transformation.	4.01	Highly Practiced
10. I participate in action research related to instructional practices.	3.95	Highly Practiced
OVERALL MEAN	4.14	Highly Practiced

Table 4 presents the level of teachers' instructional innovation in terms of collaborative instructional practices. The results indicate a high level of instructional innovation in terms of collaborative instructional practices with a mean score of 4.14, interpreted as "Highly Practiced." This suggests that teachers are actively engaged in working with teams, co-planning, and shared teaching strategies which can foster a more meaningful experience for learners.

The high mean scores for indicators such as their participation in professional learning communities focused on instructional improvement (4.44) and attending workshops or webinars on instructional innovation (4.35) presented a positive attitude towards improvement of instruction.

The result in table 4 supports the findings of Khasawneh et. al. (2023) that teachers who regularly participate in collaborative activities reported an increased confidence in utilizing new teaching strategies, which leads to more innovative classroom practices. Moreover, these collaborative strategies foster a sense of responsibility that encourage teachers to align their goals and teaching strategies.

Table 5 presents the summary of instructional innovation in terms of pedagogical adaptability, collaborative instructional practices, creative content delivery, and technology integration in instruction using descriptive statistics.

Table 5. Summary of the Level of Instructional Innovation.

Sub-variables	Mean	Qualitative Interpretation
1. Pedagogical adaptability	4.16	Highly Practiced
2. Collaborative instructional practices	4.14	Highly Practiced
3. Creative Content Delivery	4.02	Highly Practiced
4. Technology integration in instruction	4.01	Highly Practiced
OVERALL MEAN	4.08	Highly Practiced

Table 5 the results indicated a high level of teachers' instructional innovation, with an overall mean score of 4.08, categorized as "Highly Practiced." This implies that teachers promote greater learner engagement and improvement of academic performance through the use of innovative teaching strategies that makes lesson more interactive, inclusive, and tailored to the diverse needs of learners.

The sub-variable scores show that pedagogical adaptability (4.16) is particularly strong suggesting that teachers are adapting various methodologies and strategies to enhance their teaching practices. Additionally, collaborative instructional practices (4.14) is also "Highly Practiced" suggesting that teachers are doing collaborations with

others that help them learn strategies that they can use in their respective schools. The creative content delivery (4.12) further reinforces the importance of being creative in for better delivery of lessons.

The result in Table 5 supports the studies of Delgado (2025) and Demir (2023), which highlighted that the teachers who engages in instructional innovation, these teaching strategies can improve learner participation and learning outcomes.

Table 6 shows the level of tenured teachers' digital expertise in terms of digital tool proficiency. The level of teachers' digital expertise in terms of digital tool proficiency is shown through descriptive statistics, specifically the mean.

Table 6 shows the level of teachers' digital expertise in terms of digital tool proficiency.

Indicators	Mean	Qualitative Interpretation
1. I use presentation software (e.g., PowerPoint, Canva) to enhance my lessons.	4.43	High Digital Expertise
2. I can confidently operate basic digital tools (e.g., word processors, spreadsheets).	4.41	High Digital Expertise
3. I can integrate multimedia content into my teaching materials.	4.25	High Digital Expertise
4. I am able to teach students how to use digital tools responsibly.	4.16	High Digital Expertise
5. I manage digital files and resources efficiently.	4.09	High Digital Expertise
6, I regularly update my knowledge of new educational technologies.	4.05	High Digital Expertise
7. I am proficient in using online learning platforms (e.g., Google Classroom, Moodle).	3.91	High Digital Expertise
8. I can navigate video conferencing platforms (e.g., Zoom, MS Teams) for teaching.	3.88	High Digital Expertise
9. I can troubleshoot common technical issues during digital instruction.	3.73	High Digital Expertise
10. I use assessment tools (e.g., Google Forms, Quizizz) to evaluate student learning.	3.59	High Digital Expertise
OVERALL MEAN	4.05	High Digital Expertise

Table 6 showed the level of teachers' digital expertise in terms of digital tool proficiency. The results from Table 6 indicated that teachers possess a high level of digital expertise in terms of digital tool proficiency, with an overall mean score of 4.05, categorized as "high." This implies that teachers are capable to integrate digital tools into their teaching practices which can enhance the quality and effectiveness of teaching and learning.

The data in Table 6 showed mean scores that highlight teachers' digital expertise in terms of digital tool proficiency, with the highest score being 4.43 for making use of presentation software in enhancing their lesson. Additionally, a score of 4.41 reflects teachers' expertise in the use of basic digital tools like word processing and spreadsheet applications. In contrast, the lowest score of 3.59 pertains to the use of assessment tools to evaluate student learning, suggesting that online mode of assessment tools is not so much utilized by teachers.

The result in Table 6 supports the study of Sutacio and Ubayubay (2025) where it highlighted that teachers who exhibited high digital proficiency found to have a significant positive relationship with teaching quality.

Table 7 shows the level of tenured teachers' digital expertise in terms of instructional design using technology. The level of teachers' digital expertise in terms of instructional design using technology is shown through descriptive statistics, specifically the mean.

Table 7. Level of tenured teachers' digital expertise in terms of instructional design using technology.

Indicators	Mean	Qualitative Interpretation
1. I use technology to promote student-centered learning.	4.29	High Digital Expertise
2. I use technology to differentiate instruction for diverse learners.	4.21	High Digital Expertise
3. I adapt instructional materials for online or blended learning environments.	4.20	High Digital Expertise
4. I align digital content with curriculum standards and student needs.	4.17	High Digital Expertise
5. I evaluate the effectiveness of digital tools in achieving learning outcomes.	4.14	High Digital Expertise
6. I create interactive learning experiences using digital platforms.	4.14	High Digital Expertise
7. I design lessons that incorporate digital resources to support learning goals.	4.10	High Digital Expertise
8. I plan lessons that encourage student use of technology for exploration.	3.99	High Digital Expertise
9. I use digital storytelling or simulations to enhance student engagement.	3.82	High Digital Expertise
10. I integrate online collaborative tools *(e.g., Padlet, Jamboard*) into my instruction.	3.32	Moderate Digital Expertise
OVERALL MEAN	4.04	High Digital Expertise

Table 7 revealed important implications regarding teachers' digital expertise in terms of instructional design using technology. The overall mean score of 4.04 interpreted as "High Digital Expertise" implies that teachers who use technology in instructional design plans and deliver their lessons in smarter and engaging ways tailored to the diverse needs of learners. The designed activities are interactive and flexible which keeps learners interest and learn better.

The highest mean score of 4.29 interpreted as "High Digital Expertise" indicates that teachers are making use of technology to address diverse needs of learners. This adaptability is crucial for fostering an inclusive learning environment, as it allows teachers to tailor their methods to enhance student engagement and understanding.

The lowest mean score of 3.32 interpreted as "Moderate Digital Expertise" suggests that the integration of online collaborative tools into their teaching. This area presents an opportunity for learning modern online tools to enhance the delivery of lesson.

The result in Table 7 is supported by the study of Berry (2024) where it was highlighted that with the increased adoption of digital technologies such as televisions, laptop computers, and internet-based tools, teachers reported greater instructional motivation and improvement learner participation though technology supported lessons.

Table 8 shows the level of tenured teachers' digital expertise in terms of digital communication and collaboration.

Table 8. Level of tenured teachers' digital expertise in terms of digital communication and collaboration.

Indicators	Mean	Qualitative Interpretation
1. I use digital tools to document and share instructional practices.	4.38	High Digital Expertise
2. I communicate with students using digital platforms (e.g., email, chat apps, messenger, whatsapp).	4.38	High Digital Expertise
3. I use social media or school platforms to share educational updates.	4.29	High Digital Expertise
4. I encourage students to collaborate digitally on group tasks.	4.23	High Digital Expertise
5. I maintain digital etiquette in all professional interactions.	4.21	High Digital Expertise
6. I contribute to online communities of practice for educators.	4.17	High Digital Expertise
7. I engage with parents or guardians through digital communication.	4.09	High Digital Expertise
8. I provide timely feedback through digital channels.	3.97	High Digital Expertise
9. I participate in virtual professional development activities.	3.95	High Digital Expertise
10. I collaborate with colleagues using online tools (e.g., shared drives, forums).	3.94	High Digital Expertise
OVERALL MEAN	4.16	High Digital Expertise

Table 8 indicated significant implications for teachers' digital expertise in terms of digital communication and collaboration. The overall mean score is 4.16, and interpreted as "High Digital Expertise" implies a more connected, efficient, and supportive learning community. When teachers actively utilize digital tools in sharing their ideas, resources, and feedback, they strengthen teamwork and promote a culture of continuous learning.

The highest mean scores of 4.38 for both the use of digital tools to document and share instructional practices and communicating with students through digital platforms.

The lowest mean score of 3.94, although interpreted as "High Digital Expertise" is on collaborating with colleagues through online tools suggests that, while collaboration is practiced, utilizing online tools for collaboration is least practiced among teachers as various online tools need internet connectivity.

The result in Table 8 is supported by the study of Jalop and Paglinawan (2025) where teachers demonstrated a high level of collaboration and open digital communication in managing shared instructional goals. Also, the study found a strong correlation between digital environments and innovation in teaching strategies.

Table 9 summarizes the level of teachers' the level of teachers' digital expertise. This technique was employed to present a clear overview of teachers' digital expertise in terms of digital tool proficiency, instructional design using technology, and digital communication and collaboration.

Table 9. Summary of the level of tenured teachers' digital expertise.

Sub-variables	Mean	Qualitative Interpretation
1. Digital communication and collaboration	4.16	High Digital Expertise
2. Digital tool proficiency	4.05	High Digital Expertise

3. Instructional design using technology	4.04	High Digital Expertise
OVERALL MEAN	4.08	High Digital Expertise

Table 9 findings provided a comprehensive overview of teachers' digital expertise across three key sub-variables: digital communication and collaboration, digital tool proficiency, and instructional design using technology. The overall mean of 4.08 indicates that teachers generally demonstrate confidently technology integration into their teaching practices.

The highest mean of 4.16 is digital communication and collaboration suggests that teachers working collaboratively with colleagues to adapt and learn new strategies in teaching.

In terms of digital tool proficiency, with a mean score of 4.05, teachers show a solid ability to make use of various digital tools to better understanding of the lesson they deliver. The instructional design using technology score of 4.04 reflects teachers' greater familiarity of various digital tools.

Table 9 is supported by the studies of Dominguez-Gonzalez and Lopez-Fernandez (2025) and Servancia (2025) that teachers with high digital expertise are more confident and innovative in the application of data-informed instruction and learner-centered instruction in the classroom.

Relationship of Tenured Teachers' Instructional Innovation to Digital Expertise.

Table 10 shows the correlation between teachers' instructional innovation to the digital expertise of teachers. A normality test using the Shapiro-Wilk statistic was conducted prior to the correlation analysis. The results showed p-values less than .001 for both variables, indicating non-normal distribution. As a result, a non-parametric correlation method was used to determine the significance of the relationship between digital wellbeing and emotional agility.

Table 10. Relationship of Instructional Innovation and Teachers' Digital Expertise Correlations.

	r-value	p-value	Result
Instructional Innovation and Digital Expertise	0.313	0.000	Significant

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10 presented the relationship between instructional innovation to the digital expertise of teachers. The results revealed a correlation coefficient (*r-value*) of 0.803 with a p-value of 0.000, indicating a significantly moderate positive correlation between the two variables. This suggests that teachers who actively engage in innovative teaching practices tend to possess stronger digital skills.

Several studies supported the afore cited findings. Zou et. al. (2025) pointed out that teachers with advance digital skills are more likely to implement innovative teaching strategies. They move beyond traditional teaching methods and embraces student-centered approaches that leveraged digital tools to improve learning outcomes. Similarly, Llacza, et. al. (2025) pointed out that digital competence is vital in promoting instructional innovation and enhancement of learning.

CONCLUSIONS

The findings of the study revealed that tenured teachers in marginalized schools exhibit a high level of instructional innovation, particularly in their ability to integrate technology into instruction, adapt pedagogical strategies to diverse learning needs, deliver content creatively, and engage in collaborative teaching practices. This suggests that despite the challenges often associated with marginalized educational settings-such as limited access to resources, infrastructure and training- teachers are actively embracing innovative approaches to enhance student learning experiences.

The study also found that these teachers possess a high degree of digital expertise, as evidenced by their

proficiency in using digital tools, designing instruction with technology, and communicating collaboratively in digital environments. This level of competence indicates a strong commitment to professional growth and a willingness to adapt to the demands the educational landscape. The significant relationship between instructional innovation and digital expertise implies that teachers who are more innovative in their teaching practices are more likely to be proficient.

RECOMMENDATIONS

Based on the study's findings, it is recommended that school administrators and policy-makers may prioritize sustained professional development programs that focus on both instructional innovation and digital competency. Teachers in marginalized schools may be given regular access to trainings that enhances their ability to integrate technology, adapt teaching strategies, and collaborate effectively.

Promoting professional collaboration can empower teachers to share best practices and develop appropriate instructional materials. The school may also consider integrating innovation and digital expertise into teacher evaluation frameworks and incentive structures to recognize and reward excellence. Lastly, future research may implore long-term impact of instructional innovation and digital proficiency on student outcomes, particularly in marginalized contexts. In this manner, the capabilities of teachers will be strengthened and become active contributors to a more inclusive and effective learning environment.

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