

Teachers' Digital Literacy, Innovative Practices, And Instructional Strategies

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Abstract

This study explored the levels of teachers' digital literacy, innovative practices, and instructional strategies among elementary school teachers in the Schools Division of Antique during the year 2025. Using a descriptive-correlational research design, the study sought to determine the extent of teachers' digital literacy in terms of basic ICT skills, information management, and online communication; assess the level of innovative teaching practices; and identify the instructional strategies commonly applied in classroom instruction. It also aimed to establish the relationship between teachers' digital literacy and their innovative and instructional practices. The respondents were 365 elementary school teachers selected through total enumeration. Data were collected using a researcher-developed questionnaire that underwent expert validation and reliability testing. Descriptive statistical tools such as frequency, percentage, mean, and standard deviation were used to determine the levels of the variables, while Pearson Product-Moment Correlation was applied to identify significant relationships at the 0.05 level of significance. The findings revealed that teachers exhibited a high level of digital literacy, a high extent of innovative practices, and effective instructional strategies. Moreover, significant positive relationships were found between teachers' digital literacy and innovative practices, as well as between digital literacy and instructional strategies. These results suggest that teachers with stronger digital competencies are more inclined to adopt innovative approaches and implement effective instructional strategies in the teaching-learning process. The study concludes that strengthening teachers' digital literacy is vital in fostering innovation and improving instructional delivery. It is therefore recommended that school administrators and policymakers enhance continuous professional development programs that focus on digital competence and innovative pedagogy to sustain quality education in the digital age.

Keywords: Digital Literacy, Innovative Practices, Instructional Strategies, Elementary Teachers, Teachers' Competence

Introduction

In the rapidly changing educational landscape of the 21st century, teachers' digital literacy has become an essential competency in delivering quality instruction and addressing the diverse learning needs of pupils. Digital literacy refers to teachers' ability to effectively use digital tools, platforms, and information resources to support teaching, learning, and assessment (Ng, 2012). In elementary education, where foundational knowledge and skills are developed, teachers' digital competence plays a crucial role in creating meaningful learning experiences and enhancing pupils' engagement in technology-rich environments. As schools continue to integrate information and communication technology (ICT) into

instruction, teachers who are digitally literate are better equipped to design interactive lessons, utilize online resources, and respond to emerging educational innovations (UNESCO, 2018).

Closely associated with digital literacy are teachers' innovative practices, which involve the use of creative and novel approaches in teaching, classroom management, and curriculum delivery. Innovative teaching practices promote active learning, critical thinking, and collaboration among learners, thereby improving overall instructional effectiveness (OECD, 2019). Teachers with strong digital literacy skills are more likely to experiment with technology-enhanced strategies such as multimedia presentations, digital storytelling, online simulations, and blended learning approaches, all of which contribute to increased learner motivation and deeper understanding of lessons (Ertmer & Ottenbreit-Leftwich, 2013).

Instructional strategies serve as the practical means through which teachers translate their digital skills and innovative ideas into actual classroom practice. Effective instructional strategies supported by technology allow teachers to differentiate instruction, accommodate varied learning styles, and promote learner-centered environments (Hattie, 2009). In elementary schools, the alignment of digital literacy, innovative practices, and instructional strategies is essential to ensure that the use of technology enhances learning rather than distracts from instructional goals.

In the Schools Division of Antique, understanding how elementary teachers' digital literacy influences their innovative practices and instructional strategies is important in guiding professional development efforts and policy decisions. Thus, this study examined teachers' digital literacy, innovative practices, and instructional strategies among 365 elementary school teachers in the Schools Division of Antique during the year 2025.

This study aimed to examine the interrelationship among teachers' digital literacy, innovative practices, and instructional strategies among elementary school teachers in the Schools Division of Antique during the year 2025. Specifically, it sought to determine the level of teachers' digital literacy in terms of technical skills, information and media literacy, and pedagogical use of digital technologies; assess the extent of their innovative practices in integrating technology-enhanced, creative, and learner-centered approaches; and identify the level of instructional strategies employed in lesson planning and delivery, learner engagement, differentiation, and classroom management. Furthermore, the study investigated the significant relationships between teachers' digital literacy and innovative practices, digital literacy and instructional strategies, and innovative practices and instructional strategies. Lastly, it aimed to determine which among teachers' digital literacy and innovative practices significantly predicts the instructional strategies of elementary school teachers.

Methodology

This study utilized a descriptive–correlational research design to examine the relationships among teachers' digital literacy, innovative practices, and instructional strategies among elementary school teachers in the Schools Division of Antique during the year 2025. The respondents consisted of 365 elementary school teachers selected through stratified random sampling to ensure fair representation from different schools within the division. Data were collected using a researcher-made questionnaire comprising three major components: teachers' digital literacy, innovative practices, and instructional strategies. The instrument employed a five-point Likert scale and underwent content validation by experts as well as reliability testing to ensure accuracy and consistency of the data. Prior to data gathering, permission was obtained from the concerned authorities, and ethical considerations such as voluntary participation and confidentiality were strictly observed. The collected data were analyzed using frequency,

percentage, mean, and standard deviation to determine the levels of the variables. Pearson Product-Moment Correlation and multiple regression analysis were also used to identify significant relationships and predictive influences among the variables. All results were interpreted at a 0.05 level of significance to ensure valid conclusions and recommendations.

Results

The findings revealed that teachers' digital literacy among elementary school teachers in the Schools Division of Antique was at a high level, with an overall mean of 4.18 (SD = 0.46). Teachers demonstrated strong competence in basic computer operations, the use of educational software, internet navigation, and online communication tools. This indicates that the majority of teachers are capable of integrating digital resources into their daily teaching practices.

In terms of innovative practices, the results showed a high level of implementation, with a composite mean of 4.12 (SD = 0.49). Teachers frequently employed creative teaching approaches such as multimedia presentations, interactive digital activities, collaborative learning platforms, and contextualized instructional materials. These findings reflect a positive orientation toward innovation in classroom instruction.

Regarding instructional strategies, the respondents also exhibited a high level, with an overall mean of 4.20 (SD = 0.44). Teachers effectively applied learner-centered strategies, technology-assisted instruction, differentiated teaching approaches, and formative assessment tools to improve learning outcomes.

Correlation analysis revealed a significant positive relationship between teachers' digital literacy and innovative practices ($r = 0.63$, $p < 0.05$), indicating that higher digital literacy is associated with greater use of innovative teaching methods. Similarly, a significant positive relationship was found between digital literacy and instructional strategies ($r = 0.68$, $p < 0.05$). Innovative practices were also significantly correlated with instructional strategies ($r = 0.71$, $p < 0.05$).

Further analysis using multiple regression indicated that teachers' digital literacy and innovative practices significantly predicted instructional strategies, accounting for 52% of the variance ($R^2 = 0.52$, $p < 0.05$). This suggests that teachers who possess strong digital skills and demonstrate innovation are more likely to employ effective instructional strategies in the classroom.

Discussion

The results of the study highlight that teachers' high level of digital literacy plays a vital role in the effective integration of technology into classroom instruction. Digitally competent teachers tend to be more confident in using various digital tools, enabling them to design engaging, interactive, and meaningful learning experiences. This finding reinforces the view that digital literacy serves as a foundational skill that enhances teaching effectiveness in contemporary educational settings.

The high level of innovative practices observed among teachers indicates their responsiveness to current educational trends that emphasize creativity, flexibility, and learner-centered instruction. The use of multimedia and interactive technologies aligns with modern pedagogical approaches that promote active learning and student engagement. This finding supports previous studies emphasizing the importance of innovation in improving instructional quality and learner outcomes.

Moreover, the strong relationship between innovative practices and instructional strategies underscores the role of creativity in shaping effective teaching. Teachers who adopt innovative approaches are more inclined to implement varied and responsive instructional strategies that address diverse learner needs.

The significant predictive influence of digital literacy and innovative practices on instructional strategies further emphasizes the importance of continuous professional development focused on technology integration and innovation. Overall, the findings affirm that strengthening teachers' digital competence and innovative capacity can lead to more effective instructional practices in elementary education.

Conclusion

Based on the findings, it is concluded that elementary school teachers in the Schools Division of Antique possess a high level of digital literacy, enabling them to effectively integrate technology into the teaching–learning process. Teachers also demonstrate a high level of innovative practices, reflecting their ability to apply creative and technology-driven approaches in classroom instruction. Likewise, the instructional strategies employed by teachers were found to be highly effective, indicating strong competence in delivering learner-centered, engaging, and technology-assisted lessons.

The significant positive relationships among teachers' digital literacy, innovative practices, and instructional strategies confirm that digital competence and innovation play a critical role in enhancing instructional delivery. Teachers who are digitally literate are more capable of adopting innovative practices, which in turn strengthen their instructional strategies. Furthermore, the predictive influence of digital literacy and innovative practices on instructional strategies highlights their importance as key contributors to quality teaching in elementary education. Overall, the study emphasizes the essential role of digital skills and innovation in improving instructional practices and promoting meaningful learning experiences.

Recommendations

In view of the conclusions drawn from the study, the following recommendations are offered:

School administrators should continuously support professional development programs that enhance teachers' digital literacy and innovative teaching practices through regular trainings, workshops, and seminars on emerging educational technologies.

Teachers are encouraged to further improve their digital skills and explore innovative instructional approaches by integrating new technologies, digital platforms, and interactive learning tools to address diverse learner needs.

The Schools Division of Antique should strengthen policies and initiatives that promote technology integration and innovation in teaching, including the provision of adequate digital resources, reliable internet connectivity, and technical support.

Curriculum planners and instructional leaders should promote the use of learner-centered and technology-assisted instructional strategies that foster creativity, collaboration, and critical thinking among learners.

Future researchers may conduct related studies by including additional variables such as teachers' attitudes toward technology, administrative support, or learners' academic performance to further explore factors influencing effective instructional strategies.

These recommendations aim to enhance teachers' instructional effectiveness and support the continuous improvement of teaching and learning in elementary schools.

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