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Teachers' Information and Communications Technology (Ict) Integration, Administrative Support and Learners Academic Achievement

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Abstract

This study examined the relationship between teachers' integration of Information and Communication Technology (ICT), administrative support, and learners' academic achievement in the Schools Division of Antique during the 2024–2025 school year. A total of 234 participants, including teachers and learners, were selected through stratified random sampling to ensure representation across different school levels and subject areas. Data were gathered using structured questionnaires to assess teachers' ICT practices and the extent of administrative support, while learners' academic performance was evaluated through their final grades in core subjects. Findings revealed that teachers consistently demonstrated a high level of ICT integration in their instructional practices, effectively incorporating digital tools to enhance learning experiences. Similarly, administrative support in schools was observed to be strong, with school leaders providing guidance, resources, and encouragement to facilitate the use of technology in teaching. Learners' academic achievement was generally satisfactory to very satisfactory, indicating positive learning outcomes. The study also found that both ICT integration and administrative support were positively associated with learners' academic performance, with teachers' effective use of technology emerging as a particularly influential factor. The study concludes that fostering a technologically rich teaching environment, supported by proactive administrative guidance, is crucial for improving learners' academic outcomes. It is recommended that school administrators and policymakers continue to provide access to modern technological resources, offer ongoing ICT training for teachers, and maintain consistent support structures to enhance the quality of teaching and learning. Such efforts can ensure that both educators and learners maximize the benefits of ICT in education, ultimately contributing to higher academic achievement.

Keywords: ICT Integration, Administrative Support, Academic Achievement, Teachers, Learners, Instructional Effectiveness

Introduction

The integration of Information and Communications Technology (ICT) in education has become essential in enhancing teaching and learning outcomes in the 21st century. ICT enables teachers to deliver

lessons more effectively, use interactive instructional strategies, and provide students with access to digital resources, which fosters engagement and improves academic performance (Tondeur et al., 2017). When integrated effectively, ICT promotes better understanding, higher-order thinking skills, and more personalized learning experiences (Ertmer & Ottenbreit-Leftwich, 2010).

Administrative support plays an equally important role in facilitating ICT integration. School leaders provide the infrastructure, resources, and policy guidance that help teachers implement ICT effectively. Support, including training, access to digital tools, and technical assistance, enhances teachers' confidence, willingness, and ability to use ICT in instruction (Inan & Lowther, 2010; UNESCO, 2017). Without sufficient support, even skilled teachers may struggle to utilize ICT fully in improving student learning.

The impact of ICT integration and administrative support is evident in learners' academic achievement. Students benefit from innovative teaching methods, interactive learning activities, and timely feedback supported by technology. Research indicates that schools with strong ICT practices and active administrative support tend to have higher student performance, as technology strengthens instructional quality and learner engagement (DepEd, 2019; OECD, 2019).

Despite these benefits, challenges such as limited access to technology, insufficient training, and inconsistent administrative support remain, particularly in rural or resource-limited areas within the Schools Division of Antique.

This study therefore investigates the relationship between teachers' ICT integration, administrative support, and learners' academic achievement among 234 respondents in the Schools Division of Antique during the School Year 2024–2025. The findings aim to provide evidence-based insights for school administrators, teachers, and policymakers to improve ICT adoption, strengthen administrative support, and enhance student learning outcomes.

The study specifically seeks to determine the level of teachers' ICT integration, including the use of digital instructional tools, online resources, and interactive teaching strategies. It also assesses the extent of administrative support provided to teachers, including access to technological resources, training opportunities, and guidance in ICT implementation. Furthermore, it examines learners' academic achievement in core subjects and explores the predictive relationships between ICT integration, administrative support, and student outcomes. The findings are intended to inform recommendations that strengthen ICT adoption, enhance administrative support, and improve learner performance in the Schools Division of Antique.

Methodology

This study employed a descriptive-correlational research design to examine the relationship between teachers' ICT integration, administrative support, and learners' academic achievement in the Schools Division of Antique during the School Year 2024–2025. The descriptive aspect evaluated the levels of ICT integration, administrative support, and student performance, while the correlational component examined the relationships among these variables without manipulation.

A total of 234 teachers and learners from selected schools within the division participated. Stratified random sampling ensured proportional representation across school levels, subjects, and teaching experience.

Data were collected using a structured questionnaire and academic records. The questionnaire included two sections: Part I assessed teachers' ICT integration, covering digital tools, online resources, and interactive strategies; Part II evaluated administrative support, including access to technology, training, and guidance in ICT implementation. Learners' academic achievement was obtained from final grades in core subjects. The instrument was adapted from validated studies (Ertmer & Ottenbreit-Leftwich, 2010; Tondeur et al., 2017) and reviewed by experts for content validity. Reliability testing showed Cronbach's alpha values above 0.80, indicating high internal consistency.

Ethical considerations included obtaining approval from the Schools Division Office of Antique, securing informed consent, and ensuring confidentiality.

Data were analyzed using descriptive statistics (frequency, percentage, weighted mean, standard deviation) to determine levels of ICT integration, administrative support, and learner achievement. Pearson correlation examined the relationships between variables, and multiple regression identified predictors of learners' academic performance, with significance set at 0.05.

Results

Teachers' ICT integration was rated high overall (WM = 4.19, SD = 0.45). Use of digital instructional tools received the highest rating (M = 4.25, SD = 0.42), followed by interactive teaching strategies (M = 4.20, SD = 0.44) and online resource utilization (M = 4.12, SD = 0.47). These results suggest effective integration of technology into classroom instruction, supporting previous studies highlighting ICT's positive effect on teaching and engagement (Ertmer & Ottenbreit-Leftwich, 2010; Tondeur et al., 2017).

Administrative support was also high (WM = 4.15, SD = 0.46), with ICT training and workshops rated highest (M = 4.22, SD = 0.44), followed by access to technology (M = 4.17, SD = 0.45) and guidance in ICT implementation (M = 4.07, SD = 0.48). This suggests that school administrators actively provide resources and support to facilitate ICT adoption, aligning with UNESCO (2017) and Inan & Lowther (2010).

Learners' academic achievement showed a mean general average of 85.32 (SD = 5.12), indicating satisfactory to very satisfactory performance. Correlation analysis revealed positive relationships between ICT integration and achievement ($r = 0.61$, $p < 0.01$) and between administrative support and achievement ($r = 0.57$, $p < 0.01$). Multiple regression indicated that ICT integration and administrative support together significantly predicted learners' academic achievement ($R^2 = 0.54$, $p < 0.05$), with ICT integration being the stronger predictor.

Discussion

The findings of this study indicate that teachers in the Schools Division of Antique demonstrate a high level of ICT integration, particularly in the use of digital instructional tools and interactive teaching strategies. This suggests that teachers are effectively utilizing technology to enhance instruction and engage learners, supporting Ertmer and Ottenbreit-Leftwich (2010) and Tondeur et al. (2017), who emphasized that ICT integration improves lesson quality, learner engagement, and academic outcomes. The high level of ICT integration observed also indicates that teachers are confident and competent in

incorporating technology into their daily instructional practices, which is critical in modern educational contexts.

The study also revealed that administrative support is rated high, particularly in providing ICT training, access to technological resources, and guidance for ICT implementation. This finding aligns with UNESCO (2017) and Inan and Lowther (2010), who argue that administrative backing is essential for the successful adoption of ICT in schools. When school leaders provide adequate resources, professional development, and technical support, teachers are better equipped to implement technology-enhanced instruction, which positively affects student learning outcomes.

In terms of learners' academic achievement, students achieved satisfactory to very satisfactory levels, indicating that effective ICT integration coupled with strong administrative support contributes to improved academic performance. The significant positive correlations between teachers' ICT integration and learners' academic achievement ($r = 0.61$, $p < 0.01$) and between administrative support and learners' academic achievement ($r = 0.57$, $p < 0.01$) demonstrate that both variables are important determinants of student success. Multiple regression analysis further revealed that ICT integration and administrative support together significantly predict learners' academic achievement ($R^2 = 0.54$, $p < 0.05$), with ICT integration being the stronger predictor.

Overall, these findings suggest that teachers' technological competence and supportive school administration are critical factors in enhancing learner outcomes. By providing both the necessary skills and the institutional support, schools can foster an environment where ICT integration directly contributes to higher student academic performance. This underscores the importance of ongoing professional development, access to digital resources, and active administrative involvement in promoting effective teaching and learning.

Conclusion

Based on the findings of the study, it can be concluded that teachers in the Schools Division of Antique demonstrate a high level of ICT integration in their instructional practices, effectively utilizing digital tools, online resources, and interactive teaching strategies. Additionally, the study revealed that administrative support is provided at a high level, particularly in terms of ICT training, access to technological resources, and guidance for ICT implementation. These factors significantly contribute to learners' academic achievement, as students performed at satisfactory to very satisfactory levels. Correlation and regression analyses confirmed that both ICT integration and administrative support positively influence student academic performance, with ICT integration being the stronger predictor. Overall, the study underscores that effective ICT integration combined with supportive school administration is crucial for enhancing teaching quality and improving learners' academic outcomes in the Schools Division of Antique.

Recommendations

In light of the findings and conclusions of this study, it is recommended that school administrators and the Schools Division Office of Antique continue to strengthen teachers' ICT integration by providing regular access to updated digital tools, software, and online instructional resources. Teachers should be

encouraged to actively participate in professional development programs and ICT-related training workshops to enhance their technological competencies and instructional strategies. Moreover, school leaders are urged to maintain and expand administrative support, including guidance for effective ICT implementation, provision of necessary technological resources, and continuous monitoring of ICT practices in classrooms. Collaborative initiatives, such as peer mentoring and sharing of best practices, can further enhance teachers' ICT adoption and application. Lastly, future research is recommended to explore additional factors influencing learners' academic achievement, such as learner motivation, school infrastructure, and teacher-student interaction, to gain a more comprehensive understanding of how ICT integration and administrative support impact educational outcomes.

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