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DIGITAL LITERACY AND PRINCIPALS' ADMINISTRATIVE EFFECTIVENESS IN PUBLIC SECONDARY SCHOOLS IN CROSS RIVER STATE, NIGERIA: IMPLICATIONS FOR STUDENT WELFARE MANAGEMENT

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ABSTRACT

In today's rapidly evolving digital age, digital literacy has become a key driver of effective administration in schools, shaping the future of educational leadership and management. Premised on this, this study investigated digital literacy and principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria: Implications for student welfare management. Specifically, it examined the relationship between digital communication literacy, social media literacy and principals' administrative effectiveness. Two null hypotheses were tested. The study adopted a correlation design. The population was principals in all 297 public secondary school Cross River State. The sample size of 149 principals which is (50%) of the entire population was selected through the stratified and simple random sampling techniques. Data were collected using a 24-items questionnaire titled "Digital Literacy and Principals' Administrative Effectiveness Questionnaire (DLPAEQ)," structured on a modified 4-point Likert scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly (SD). The instrument was validated by three experts in the Department of Educational Management; Measurement and Evaluation in the Faculty of Educational Foundation Studies, University of Calabar. Corrections and adjustments were adopted into the final draft of the instrument before administration. The degree of reliability of the instrument was established using Cronbach Alpha Reliability Estimate with a coefficient of .79 and .85 respectively. The hypotheses were tested at 0.05 level of significance with Pearson Product Moment Correlation using the Statistical Package for Social Sciences (SPSS) respectively. The study concluded that digital communication literacy and social media literacy significantly enhance principals' administrative effectiveness. This showed that principals who are proficient in using digital communication tools and social media platforms are better equipped to manage school operations, improve communication

with staff, students, and the wider school community, and make informed decisions. Based on the findings, it was recommended that education authorities implement regular training programs to enhance principals' digital literacy for a more effective and efficient school administration.

Keywords: Digital Literacy, Social Media Literacy, Digital Communication Literacy, Principals' Administrative Effectiveness, Student Welfare Management

Introduction

Education is a tool for economic, social, and national development, as well as human transformation. The fact remains that no contemporary society can experience meaningful growth and development without a strong, high-quality educational system, including secondary education (Madukwe et al., 2024). The administration of secondary education has become more complex due to rising student enrollment, increased staff numbers, and diverse school needs. Despite these challenges, the primary goal of every principal is to enhance efficiency, stay current, and achieve high-quality objectives promptly. The objectives of secondary education are categorized into three areas: access to higher education, knowledge acquisition, and teaching and learning outcomes (Etor, Obeten, & Obona, 2019). However, these goals cannot be achieved without effective school administration.

Principals' administrative effectiveness is a crucial factor in determining the overall success of secondary schools. In the context of this study, principals' administrative effectiveness is the capacity of school leaders to skillfully manage resources, direct staff, execute educational policies, and foster a supportive environment for both teaching and learning. As noted by Adeniyi in Ese and Okai (2024), administrative effectiveness, refers to a principal's ability to perform tasks related to instructional management, internal relations, institutional administration, student performance, and school-community engagement, all aimed at achieving the school's goals. Sheppard and Dibbion (2010) highlighted that a school administrator's effectiveness depends on their ability to recognize key components of their role. Effective administration is reflected in the successful achievement of school goals, enhanced student performance, increased staff motivation, and the efficient utilization of resources to improve overall school outcomes. This effectiveness encompasses the ability to plan, organize, lead, and oversee various school operations, ensuring smooth functionality and the realization of educational objectives.

School administration is essential for both achieving educational goals and fostering staff motivation. Principals play a crucial role both in improving student performance and ensuring the delivery of quality education. This can be done by using strategic planning, efficient resource management, strong leadership and proper maintenance of school facilities which preserves the functionality of buildings and equipment, thereby making the teaching and learning process more engaging (Obon et al, 2024). Additionally,

effective administration can create a positive work environment that motivates staff through fair policies, adequate resources, and opportunities for professional development. As noted by Difoni et al (2024), this will enhance positive interactions with colleagues and superiors, discipline, motivation, effective student counseling, and adherence to professional standards. Other indicators include fostering a positive school culture, maintaining effective communication channels, implementing data-driven decision-making, and ensuring compliance with educational policies.

Student welfare management is another key aspect of principals' administrative effectiveness and social responsibility. This involves ensuring the overall well-being and development of students within the school system. This includes monitoring student health, safety, and academic progress, as well as addressing behavioral issues and promoting a supportive learning environment. Effective student welfare management also involves facilitating communication among students, staff, and parents, and implementing programs that promote inclusivity and access to resources, thereby fostering a positive school culture that prioritizes student needs. The ability of a school to meet it set goals and objectives is largely determined by the principal's level of administrative efficiency.

Some researchers have reported a perceived decline in principals' administrative effectiveness due to factors such as complex administrative tasks, professional isolation, and loneliness, among others (Ese & Okai, 2024; Borema, 2011; Garcia-Garduno et al., 2011). In some public secondary schools in Cross River State, it has been observed that many principals are struggling to meet their schools' goals. Resource constraints have hindered the proper maintenance of facilities, while the lack of continuous professional development and training has prevented principals from adopting effective management practices and embracing new educational technologies. Additionally, slow decision-making processes create inefficiencies and delay timely responses to critical issues. Mismanagement of funds has led to inadequate infrastructure and resources, further compounding administrative challenges. Poor data management systems have also limited the ability to track student performance, manage records, and make informed decisions.

As secondary education administration becomes increasingly complex due to rising student enrollment, larger staff sizes, and diverse administrative demands, public concern has grown over the apparent decline in principals' effectiveness. Addressing these issues can significantly enhance administrative outcomes in areas such as resource management, stakeholder engagement, performance monitoring, crisis management, and staff development. A key contributing factor to these challenges may be a lack of digital literacy among principals. Developing digital literacy is crucial, as it enables principals to effectively use modern tools and technologies, leading to more efficient and informed decision-making.

Digital literacy refers to the skills and knowledge needed to effectively use digital technologies, including the ability to access, evaluate, and communicate information on digital platforms. Newhouse, as cited in Ese and Okai (2024), defines digital literacy as a combination of technical, cognitive, and emotional-social skills, while Suryani (2010) emphasizes its role in facilitating social interactions through digital tools. In this digital age, principals should strive to move beyond analog practices and embrace digital methods. Principals' digital literacy, as used here, refers to their ability to acquire, utilize, and apply digital skills in the daily administration of the school. This helps improve practices, build staff capacity, and achieve set goals. Acquiring these digital skills enables principals to use digital tools effectively for decision-making, communication, and management. Key digital literacy skills that can boost school effectiveness include ICT proficiency, digital data management, cybersecurity awareness, e-learning facilitation, and digital leadership. However, this study will focus specifically on digital communication literacy and social media literacy, examining how these skills can improve principals' administrative effectiveness.

Digital Communication literacy and principals' administrative effectiveness

Digital communication encompasses the exchange of messages, data, and information using electronic devices and digital technologies. It involves sending and receiving information through various digital tools, and its importance in educational management is increasingly recognized. As schools become more reliant on technology, digital literacy is essential for effective school administration (Philip & Thinguri, 2022). Digital communication fosters collaboration, transparency, and efficiency in school management. For principals, digital communication literacy involves mastering digital tools and platforms for internal and external communication. This includes understanding digital channels, managing online content, ensuring secure and ethical communication, and using platforms like email, social media, and messaging apps to engage with stakeholders.

Philip and Thinguri (2022) explored the impact of principals' digital communication literacy on ICT integration in public secondary schools in Kitui Central, Kenya. The study employed a concurrent triangulation design, guided by Connectivism and Diffusion of Innovations theories, and sampled 172 participants, including principals, department heads, BoM chairpersons, and an ICT director. Data were collected through questionnaires and interviews, with quantitative data analyzed descriptively and qualitative data thematically. The findings indicated that while principals had basic computer skills, they struggled with more advanced digital tasks, highlighting the need for improved digital communication skills to enhance ICT integration in schools.

Bakare (2023) examined the ICT literacy of principals in Osun State, Nigeria, focusing on its impact on digital tracking of school activities. The study aimed to assess the extent of ICT literacy among principals and identify areas for

development to improve digital tracking. A sample of 167 principals from a total of 444 was selected during their 2022 annual meeting. Data were collected using an instrument titled "Principals Tracking Secondary School Operations with ICT Devices (PTS2OICT)" and analyzed using descriptive statistics and Pearson bivariate correlation. The findings revealed that principals had strong ICT literacy, which significantly supported their ability to track school activities digitally. A significant correlation ($r = 0.691$, $p = 0.01$) was found between ICT literacy and the use of ICT devices for monitoring school operations.

Abdulkareem et al. (2023) studied the relationship between principals' communication skills and school effectiveness in public secondary schools in Ilorin West Local Government, Kwara State. The research used a descriptive survey design, sampling 265 principals from a population of 1,385 through proportional sampling. Data were collected using a self-designed questionnaire titled "Principals Communication Skills and Administrative Effectiveness Questionnaire" and analyzed using descriptive statistics and the Pearson product-moment correlation coefficient. The results showed a significant relationship between principals' communication skills and their administrative effectiveness, emphasizing that effective communication is essential for enhancing school management. Hamzah et al. (2023) investigated the relationship between digital communication, digital literacy, and digital safety with online behavior among university students in Terengganu. The study used a sample of 184 students across various programs and collected data through a questionnaire distributed via Google Forms and WhatsApp. Analysis using SmartPLS version 3.99 revealed significant correlations between these digital competencies and students' online behavior. The study underscored the importance of digital skills and safety practices in shaping responsible online behavior.

Social Media Literacy and principals' administrative effectiveness

Social media serves as an essential communication tool for school administrators to address critical issues involving staff and students. Social Media Literacy refers to the skills and knowledge required to effectively use and engage with social media platforms. It involves understanding how social media works, evaluating the content critically, responsibly creating and sharing information, and navigating the ethical and privacy concerns associated with online interactions. Social media literacy also includes the ability to manage online reputations, assess the credibility of digital content, and use social media for meaningful communication and collaboration. Principals' social media literacy is the ability to use social media effectively for professional tasks, including understanding platform functions, creating relevant content, assessing information credibility, managing privacy, and maintaining ethical behavior. This skill is essential for efficient communication with staff, engaging the school community, and utilizing social media for effective school management and leadership.

Kaplan, as cited in Taşdan et al. (2024), describes social media platforms as dynamic systems that facilitate the rapid dissemination of vast amounts of information to millions of devices worldwide. These platforms offer accessible and cost-effective ways to publish, share, and connect with others (Prykhodkina & Makhynia, 2020). Social media networks such as Facebook, LinkedIn, Twitter, Weibo, Flickr, Instagram, Pinterest, YouTube, Vimeo, WordPress, and Blogger provide various forms of user engagement (Daly, 2019). School administrators utilize these platforms for educational decision-making, maintaining communication with teachers and students, highlighting teacher achievements, sharing school projects, and educating parents about the benefits of social media (Harb & Al-Zou'bi, 2022). Davies (2023) asserted that school administrators often distribute large amounts of content and information to teachers through social media.

Davies (2023) examined the relationship between school administrators' use of social media and teachers' job performance in public secondary schools in Akwa Ibom State, Nigeria. Utilizing a causal comparative design, the study involved 253 principals, with 155 selected through Taro Yamane sampling. Data were collected via two questionnaires: "School Administrators' Utilization of Social Media" and "Teachers Job Performance," both validated with a reliability coefficient of 0.80. Pearson Product-Moment Correlation Coefficient (PPMCC) analysis indicated a significant relationship between administrators' use of Facebook and LinkedIn and teachers' job performance. The study concluded that promoting these platforms for knowledge sharing among teachers could improve their job performance.

Ese and Okai (2024) investigated principals' digital competence in effectively managing public senior secondary schools in Rivers State, Nigeria. The study, guided by three research questions and hypotheses, used a descriptive survey design, sampling 145 principals through stratified random sampling. Data were collected using the "Principal Digital Competence Questionnaire," with a reliability index of 0.82. Findings revealed that tools like teleconferencing, videoconferencing, and telecomputing enhance distance learning, virtual collaboration, access to experts, and online assessments. The study concluded that digital proficiency is essential for improving school principals' management effectiveness.

Taşdan et al. (2024) explored school administrators' views on integrating social media networks into school management processes, focusing on their impact on decision-making, planning, coordination, communication, and evaluation. A phenomenological design was employed, involving 29 administrators from schools in Kars City, selected through maximum diversity sampling. Data were collected using a tailored interview form and analyzed through content and descriptive methods. Results showed that administrators frequently use social media both personally and institutionally, citing benefits like enhanced communication efficiency, security, resource sharing, and improved guidance effectiveness. Onyali

et al. (2018) assessed the extent of principals' use of social networking sites to improve communication in secondary schools in Anambra State. Using a descriptive survey design and a multi-stage sampling technique, 178 out of 257 principals were selected. Data were collected through a validated 13-item questionnaire with a reliability coefficient of 0.77. From the 178 questionnaires distributed, 169 were returned and analyzed using mean and standard deviation. The findings revealed that WhatsApp was the most commonly used platform by principals to enhance communication within schools.

Despite extensive research on related variables, no studies have specifically examined the relationship between digital literacy and principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria, with a focus on its implications for student welfare management. Existing research tends to adopt a broader or global perspective, leaving a contextual gap. This study seeks to fill that gap by focusing on public secondary schools in Cross River State, Nigeria, and contributing new insights to the literature.

Statement of Problem

Effective school administration by principals is critical to the success of any educational institution. It requires principals to not only manage resources efficiently but also to cultivate a conducive learning environment where educational goals are consistently achieved. Principals are expected to lead with vision, uphold academic standards, maintain discipline, and continually enhance their skills to meet the evolving challenges in education. However, there has been growing public concern over the declining administrative effectiveness of principals in public secondary schools across Cross River State.

Reports indicate that principals are struggling in key areas such as transparent financial management, effective teacher supervision, maintenance of school infrastructure, and fostering a positive school culture. These shortcomings have contributed to poor student performance, diminished teacher motivation, and a generally weakened educational system.

Despite efforts by the Cross River State government, such as ensuring timely salary payments and providing some infrastructural support, these issues persist. This ongoing decline has prompted the need to explore new solutions, particularly in enhancing the digital literacy of principals. This growing concern has sparked the researcher's interest in investigating the relationship between digital literacy and principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria.

Purpose of the Study

The aim of this study was to investigate digital literacy and principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria: Implications for student welfare management. Specifically, the study aimed at examining the relationship between:

1. Digital communication literacy and principals' administrative effectiveness in public secondary

schools in public secondary schools in Cross River State.
2. Social media literacy and principals' administrative effectiveness in public secondary schools in Cross River State.
3. Digital communication literacy, social media literacy and principals' administrative effectiveness in public secondary schools in Cross River State.

Research Hypotheses

The following null hypotheses were tested at 0.05 levels of significance:

1. Digital communication literacy does not have any statistically significant relationship with principals' administrative effectiveness in public secondary schools in Cross River State.
2. Social media literacy does not have any statistically significant relationship with principals' administrative effectiveness in public secondary schools in Cross River State.
3. Digital communication literacy and social media literacy does not have any joint relationship with principals' administrative effectiveness in public secondary schools in Cross River State.

Research Method

The study adopted a correlation design. The population was principals in all 297 public secondary school Cross River State. The sample size of 149 principals which is (50%) of the entire population was selected through the stratified and simple random sampling techniques. Data were collected using a 24-items questionnaire titled "Digital Literacy and Principals' Administrative Effectiveness Questionnaire (DLPAEQ)," structured on a modified 4-point Likert scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly (SD). The instrument was validated by three experts in the Department of Educational Management; Measurement and Evaluation in the Faculty of Educational Foundation Studies, University of Calabar. Corrections and adjustments were adopted into the final draft of the instrument before administration. The degree of reliability of the instrument was established using Cronbach Alpha Reliability Estimate with a coefficient of .79 and .85 respectively. The hypotheses were tested at 0.05 level of significance with Pearson Product Moment Correlation using the Statistical Package for Social Sciences (SPSS) respectively.

Research Results

Hypothesis one: Digital communication literacy does not have any statistically significant relationship with principals' administrative effectiveness in public secondary schools in Cross River State.

Pearson Product Moment Correlation was used to test the hypothesis and the result presented in table 1.

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Table 1: Pearson Product Moment Correlation of the relationship between digital communication literacy and principals' administrative effectiveness in public secondary schools in Cross River State (N=149)

Variables	$\bar{X}$	S.D	r	Sig.
Digital communication literacy	19.71	3.50		
Principals' administrative effectiveness	19.36	3.11	.53*	.000

*Significant at p<.05 df=147

Table 1 showed the correlation coefficients between digital communication literacy and principals' administrative effectiveness in public secondary schools in Cross River State. The correlation coefficients was statistically significant for effective administration of public secondary schools (r = .53, p<.05). Since *p*(.000) is less than *p*(.05), hypothesis was is rejected. The result of the analysis implied that there was a statistically significant positive relationship between digital communication literacy and principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria.

Hypothesis two: Social media literacy does not have any statistically significant relationship with principals' administrative effectiveness in public secondary schools in Cross River State.
Pearson Product Moment Correlation was used to test the hypothesis and the result presented in table 2.

Table 2: Pearson Product Moment Correlation of the relationship between social media literacy and principals' administrative effectiveness in public secondary schools in Cross River State (N=149)

Variables	$\bar{X}$	S.D	r	Sig.
Social media literacy	19.66	3.30		
Principals' administrative effectiveness	19.36	3.11	.72*	.000

*Significant at p<.05 df=147

Table 2 showed the correlation coefficients between social media literacy and principals' administrative effectiveness in public secondary schools in Cross River State. The correlation coefficients was statistically significant for principals' administrative effectiveness in public secondary schools (r = .72, p<.05). Since *p*(.000) is less than *p*(.05), hypothesis was is rejected. The result of the analysis implied that there was a statistically significant high positive relationship between social media literacy and principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria.

Hypothesis three: Digital communication literacy and social media literacy does not have any joint relationship with principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria.

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The Predictor variables in this hypothesis are the sub-scales of digital literacy (digital communication literacy and social media literacy), while the criterion variable is principals' administrative effectiveness. Multiple Regression analysis was used to test the hypothesis and the result of the analysis is presented in table 3. Table 3 showed that the analysis of variance in the regression output produced an F-ratio of 87.201, which is statistically significant at.05 probability level. This indicated that the predictor variables of digital communication literacy and social media literacy are jointly significant in predicting the criterion variable of principals' administrative effectiveness in public secondary schools. This implied that digital literacy is significantly potent in explaining the variance in principals' administrative effectiveness in public secondary schools in Cross River State.

The result also showed that a multiple regression coefficients (R) of .739 and a coefficient of determination (R^2) of .546 were obtained. The (R^2=.546) meant that when the predictors variables (digital communication literacy and social media literacy) are taken together, they contributed 54.6% of the variance in the criterion variable (principals' administrative effectiveness in public secondary schools). This further implied that 45.4% of the variation in the criterion variable could be attributed to other extraneous variables to the study. By this result, the F-value of 87.201 (p<.05), R and R^2 of .739 and .546, indicated a high positive relationship between the predictor variables and the criterion variable. Therefore, hypothesis three was rejected. This meant that digital communication literacy and social media literacy have a statistically significant joint predictive effect on principals' administrative effectiveness in public secondary schools in Cross River State. However, to find out the relative contribution of digital literacy sub-variables, a test of regression was performed. The result is presented in table 4. The result showed that digital communication literacy is the strongest predictor of the variance in principals' administrative effectiveness in public secondary schools (t = 9.401). This is followed by social media literacy (t =3.989).

Table 3: Summary of multiple regression analysis on the contribution of digital communication literacy and social media literacy principals' administrative effectiveness in public secondary schools in Cross River State

Model	SS	Df	MS	F ratio	Sig.
Regression	778.796	2	389.398	87.201	.000
Residual	647.502	145	4.466		
Total	1426.297	147			

*Significant p<.05; R=.739; R^2 = .546; Adj. R^2 = .540

a. Criterion: Principals' administrative effectiveness in public secondary schools in Cross River State.
b. Predictors: Digital communication literacy and Social media literacy

Table 4: Test of regression weight of digital literacy sub-variables

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Rank
	B	Std. Error	Beta			
Constant	4.034	1.197		3.370		
Digital communication literacy	.556	.059	.591	9.401	.000	1st
Social media literacy	.223	.056	.251	3.989	.000	2nd

Discussion

The result of the finding of hypothesis one revealed that digital communication literacy does have a statistically significant relationship with principals' administrative effectiveness in public secondary schools in Cross River State. The finding could be that principals possess strong digital communication skills which better equipped them to manage school operations efficiently. This proficiency allows them to communicate more effectively with staff, students, and the broader school community using digital platforms. As a result, they can streamline administrative tasks such as scheduling, decision-making, and information dissemination, leading to improved organizational coordination and overall school performance. The implication of this finding is that schools may need to prioritize training programs to improve principals' digital communication skills, recognizing that such literacy is essential for effective school administration in today's technology-driven environment. This would encourage the adoption of digital tools and platforms, resulting in enhanced school management and better educational outcomes.

This finding gives credence to the Philip and Thinguri (2022) conclusion that as schools become more reliant on technology, digital literacy is essential for effective school administration. Digital communication fosters collaboration, transparency, and efficiency in school management. For principals, digital communication literacy involves mastering digital tools and platforms for internal and external communication. This includes understanding digital channels, managing online content, ensuring secure and ethical communication, and using platforms like email, social media, and messaging apps to engage with stakeholders. The finding is in agreement of Philip and Thinguri (2022) who explored the impact of principals' digital communication literacy on ICT integration in public secondary schools in Kitui Central, Kenya. The findings indicated that while principals had basic computer skills, they struggled with more

advanced digital tasks, highlighting the need for improved digital communication skills to enhance ICT integration in schools. It is also similar to the finding of Hamzah et al. (2023) who investigated the relationship between digital communication, digital literacy, and digital safety with online behavior among university students in Terengganu. The study underscored the importance of digital skills and safety practices in shaping responsible online behavior.

The result of the finding of hypothesis two revealed that social media literacy does have a statistically significant relationship with principals' administrative effectiveness in public secondary schools in Cross River State. This may be because principals are literate in social media usage and effectively use these platforms to communicate with a broader range of stakeholders, including staff, students, parents, and the community. Social media allows for real-time communication, quick dissemination of important information, and the ability to gather feedback from the school community. This improves transparency, foster engagement, and creates a more inclusive and collaborative school environment, leading to enhanced administrative effectiveness. The result implies that schools may benefit from incorporating social media literacy into professional development programs for principals. This would enable principals to harness social media as a tool for efficient communication, community building, and crisis management, ultimately improving the school's responsiveness and connectivity with its stakeholders. It also suggests that education policies should support the safe and effective use of social media platforms in school administration to enhance overall school management and engagement.

This is in harmony with the submission of Harb and Al-Zou'bi (2022) that school administrators utilize these platforms for educational decision-making, maintaining communication with teachers and students, highlighting teacher achievements, sharing school projects, and educating parents about the benefits of social media. Similarly, the finding aligns with Davies (2023) assertion that school administrators often distribute large amounts of content and information to teachers through social media. The finding of this study further corroborate that of Onyali et al. (2018) who revealed that WhatsApp was the most commonly used platform by principals to enhance communication within schools. The finding is also in agreement with that of Taşdan et al. (2024) that administrators frequently use social media both personally and institutionally, citing benefits like enhanced communication efficiency, security, resource sharing, and improved guidance effectiveness.

Conclusion

The study concludes that digital communication literacy and social media literacy significantly relates to principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria. Based on the findings, this study concludes that both digital communication literacy and social media literacy play a critical role in enhancing principals' administrative effectiveness in public secondary schools in Cross River State, Nigeria. Principals who are proficient in

using digital communication tools and social media platforms are better equipped to manage school operations, improve communication with staff, students, and the wider school community, and make informed decisions. This proficiency promotes efficient information dissemination, fosters stakeholder engagement, and supports effective school management. Therefore, investing in the digital and social media literacy of school principals is essential for improving administrative effectiveness and achieving educational goals in today's increasingly digitalized environment.

Implications for Student Welfare Management

Digital literacy among principals in public secondary schools in Cross River State, Nigeria, has significant implications for student welfare management. Given their many roles as school leaders, managers and social administrators, principals' digital literacy equips them to manage not only academic operations but also the social and welfare needs of students, ensuring an integrated approach to student well-being through effective use of digital tools and communication platforms. Their proficiency in digital tools can efficiently monitor and address student needs through data-driven approaches, enhancing the accuracy of student records, tracking academic progress, and identifying issues such as absenteeism or behavioral concerns more promptly.

Digital platforms also allow for better communication between the school, students, and parents, fostering transparency and quicker response to welfare-related challenges. This capability improves the overall management of student welfare services, ensuring that students receive timely support, counseling, and interventions, which contributes to their academic success and well-being. Thus, enhancing principals' digital literacy is crucial for more effective and responsive student welfare management in schools.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Education authorities in Cross River State should implement regular training programs to enhance principals' social media and digital communication literacy. This will enable them to effectively leverage digital tools for improved school administration and stakeholder engagement.

2. Secondary schools should incorporate social media and other digital communication platforms into their administrative processes, allowing for streamlined communication with teachers, students, parents, and the wider community, which can contribute to more effective decision-making and collaboration.

3. The Ministry of Education should develop policies that mandate and support the continuous professional development of principals in digital literacy. This will ensure that school administrators remain competent in utilizing evolving digital technologies to improve

school management and drive educational outcomes.

Contribution to knowledge

This study contributes to the body of knowledge by illustrating how digital literacy strengthens principals' capacity to perform their dual responsibilities as both educational leaders and social administrators. In their social administrator role, principals are not only tasked with overseeing academic processes but also with ensuring students' overall welfare and well-being. The study shows that digital tools empower principals to effectively track and address various student needs, including attendance, academic progress, and emotional or social challenges. By incorporating digital literacy into their leadership strategies, principals can create more inclusive and responsive school environments, enabling timely interventions and well-rounded student support. This insight broadens our understanding of how digital technology intersects with comprehensive school management, emphasizing the critical role of digital skills in contemporary educational leadership.

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