



Research Article

Influence of Digital Literacy on Democratic Participation among Secondary School Students in Gusau Educational Zone, Zamfara State

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Received : February 13, 2026
Accepted : April 18, 2026

Revised : March 15, 2026
Available online : May 08, 2026

How to Cite: Sule Muhammad, & Zulyadaini Sani Gaya. (2026). Influence of Digital Literacy on Democratic Participation among Secondary School Students in Gusau Educational Zone, Zamfara State. *Public Service: Jurnal Ilmu Sosial Dan Pendidikan*, 3(1), 56-65. <https://doi.org/10.61166/service.v3i1.42>

Abstract. This study examined the influence of digital literacy on democratic participation among secondary school students in the Gusau Educational Zone, Zamfara State. Anchored on Ribble's (2008) Digital Citizenship Theory, the research adopted a descriptive correlation design, targeting 8,753 SS2 students across Gusau and Tsafe Local Government Areas. A stratified random sample of 365 students was selected, and data were collected using a validated questionnaire measuring digital literacy competencies and democratic engagement. Analyses included one-sample t-tests to assess the levels of digital literacy and democratic participation, and simple linear regression to determine the influence of digital literacy on democratic participation. Results indicated that students possessed moderate to high digital literacy ($M = 3.41$, $SD = 0.72$), actively engaged in democratic processes ($M = 3.18$, $SD = 0.69$), and that digital literacy significantly predicted democratic participation ($\beta = 0.62$, $p < .001$). Findings underscore that competence in accessing, evaluating, and using digital tools empowers

students to participate meaningfully in civic and school-related activities. The study recommends structured digital literacy programs, integration of digital tools into civic education, teacher training, and equitable access to digital resources to enhance participatory citizenship among secondary school students.

Keywords: Civic engagement, Democratic participation, Digital citizenship, Digital literacy, Secondary school students

INTRODUCTION

In the 21st century, digital technologies have transformed how young people access information, communicate, and participate in civic life. Digital literacy the ability to locate, evaluate, create, and communicate information using digital tools has become an essential skill for active participation in democratic processes (Polizzi, 2025). Among secondary school students, high levels of digital literacy enable critical engagement with political content, fostering informed opinions and responsible civic behaviour (Tambunan, Budimansyah, & Darmawan, 2024). Moreover, students who possess strong digital competencies are more likely to participate in school elections, community initiatives, and online civic discussions, demonstrating the direct influence of digital literacy on democratic participation (Hasrullah, Arya, & Hidayatullah, 2023; Waluyo, Setyoko, & Kurniasih, 2025).

However, disparities in access to digital tools, lack of structured digital literacy education, and exposure to misinformation can hinder students' ability to engage effectively in democratic processes (Sheik Mohamed & Hermansyah, 2024; *Frontiers in Political Science*, 2026). In contexts like Nigeria, including the Gusau Educational Zone, there is limited empirical evidence on how digital literacy shapes youth democratic participation, despite increasing internet penetration and social media use among students. Understanding this relationship is crucial for developing educational policies, civic curricula, and interventions that foster informed, participatory citizenship among secondary school students. Therefore, this study seeks to examine the levels of digital literacy, the extent of democratic participation, and the influence of digital literacy on democratic engagement among secondary school students in the Gusau Educational Zone.

Moreover, the critical role of digital literacy in shaping students' engagement, both academically and civically. Moses (2024) examined senior secondary school students in Nigeria and found that digital literacy skills strongly influenced students' academic engagement and their participation in structured school activities. This suggests that students with higher digital competencies are better equipped to engage meaningfully in organized tasks, which can extend to civic and democratic involvement. Similarly, Izana and Rahayu (2022) in Indonesia reported that implementing digital literacy programs in senior high schools was associated with increased political participation among students, highlighting the broader societal benefits of equipping youth with digital skills. Danial, Iswandi, and Khoirusnaini (2023) conducted action research on digital citizenship literacy and found that integrating digital tools into democratic learning activities enhanced students'

understanding of democratic values and their willingness to participate in civic processes. Tambunan, Budimansyah, and Darmawan (2024) further demonstrated that embedding digital literacy in civic education improved students' democratic engagement, although improvements varied depending on the competency domain, suggesting that effective integration requires structured guidance.

The level of democratic participation among students is shaped by both their digital competencies and contextual factors within the school environment. Barati (2023) reported that social media use among youth promoted online political discussion, which in turn encouraged offline political engagement, indicating that digital platforms can serve as a bridge to real-world democratic participation. Trihastuti et al. (2025) observed that secondary school students who actively used digital tools to explore civic topics demonstrated higher awareness of their roles as democratic citizens. In addition, research by Muringa and Adjin-Tettey (2024) found that students who developed media literacy skills were better able to critically evaluate political information, which enhanced their confidence and willingness to participate in civic activities. These findings suggest that democratic participation is not only a product of interest in civic matters but also of students' ability to access, interpret, and critically engage with information through digital means.

Furthermore, that digital literacy has a direct influence on democratic participation. Studies indicate that students with higher digital literacy are more likely to engage in online civic discussions, student government, and community activities. For example, Costa and Oliver (2025) demonstrated that co-producing digital literacy learning with students encouraged them to participate more actively in civic matters. Yuniarto, Abiyah, Sarah, and Ramadhani (2025) confirmed that digital literacy enhanced students' involvement in student governance and policy debates, showing that digital skills directly facilitate democratic engagement. Similarly, Sheik Mohamed and Hermansyah (2024) highlighted that students with strong digital literacy not only acquire civic knowledge but also develop the confidence to participate in democratic activities. These findings are further supported by Polizzi (2025), who argued that critical digital literacy allows students to navigate information strategically, empowering them to make informed decisions and participate meaningfully in democratic processes. Collectively, these studies highlight the importance of digital literacy as a foundational factor that supports students' democratic engagement, emphasizing the need for structured digital literacy programs within secondary schools.

Statement of the Problem

In today's digital era, secondary school students are increasingly exposed to various digital technologies that influence how they access information, interact with peers, and engage in societal issues. While digital literacy has become a critical skill for academic success, its role in fostering democratic participation among youths remains underexplored, particularly in regions like the Gusau Educational Zone, Zamfara State. Many students have access to smartphones, social media, and online platforms, yet they may lack the skills to critically evaluate political information or participate meaningfully in civic processes. Existing studies suggest that inadequate

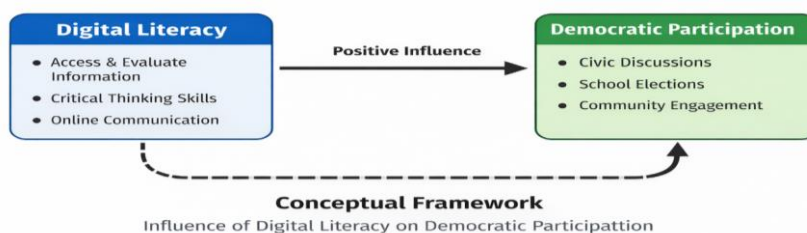
digital literacy can limit students' ability to engage responsibly in democratic activities, while excessive unstructured use of digital tools may expose them to misinformation and passive online behaviour. Despite these challenges, there is limited empirical research investigating the relationship between digital literacy and democratic participation among secondary school students in Gusau Educational Zone. This gap underscores the need to examine how students' digital competencies influence their knowledge, attitudes, and participation in democratic processes, providing insights that could inform educational policies and programs aimed at nurturing responsible and engaged digital citizens.

Theoretical Framework

This study is anchored on the Digital Citizenship Theory proposed by Mike Ribble in 2008. Ribble (2008) defines digital citizenship as the responsible and ethical use of digital technologies, emphasizing that individuals must have the skills, knowledge, and attitudes to navigate online environments safely and participate meaningfully in digital society. The theory highlights nine elements of digital citizenship, including digital literacy, digital communication, digital law, and digital participation, all of which are essential for fostering informed and responsible engagement in civic and democratic processes. Applying this theory to the current study, digital literacy among secondary school students in the Gusau Educational Zone can be viewed as a core component of digital citizenship. Students who are digitally literate are better able to access, evaluate, and engage with information online, which enhances their capacity to participate in democratic processes, both online and offline. In this way, the Digital Citizenship Theory provides a clear framework to examine how students' digital skills influence their awareness, attitudes, and participation in democratic activities (Ribble, 2008; Pangrazio & Sefton-Green, 2021).

Conceptual Framework

The conceptual framework of this study explains the relationship between digital literacy and democratic participation among senior secondary school students in the Gusau Educational Zone, Zamfara State. Digital literacy is the independent variable, while democratic participation is the dependent variable. The framework assumes that students who possess higher digital literacy skills are better able to access, evaluate, and use information, which enhances their awareness and participation in democratic activities such as civic discussions and school governance. Thus, improved digital literacy is expected to positively influence students' democratic participation.



The diagram shows that digital literacy (ability to access, evaluate, and use digital information) acts as the independent variable that influences students' civic awareness and engagement.

Research Objectives

1. To determine the level of digital literacy among senior secondary school students in the Gusau Educational Zone, Zamfara State.
2. To examine the level of democratic participation among senior secondary school students in the Gusau Educational Zone, Zamfara State.
3. To determine the influence of digital literacy on democratic participation among senior secondary school students in the Gusau Educational Zone, Zamfara State.

Research Questions

1. What is the level of digital literacy among senior secondary school students in the Gusau Educational Zone, Zamfara State?
2. What is the level of democratic participation among senior secondary school students in the Gusau Educational Zone, Zamfara State?
3. What influence does digital literacy have on democratic participation among senior secondary school students in the Gusau Educational Zone, Zamfara State?

Hypotheses

1. H_{01} : There is no significant level of digital literacy among senior secondary school students in the Gusau Educational Zone, Zamfara State.
2. H_{02} : There is no significant level of democratic participation among senior secondary school students in the Gusau Educational Zone, Zamfara State.
3. H_{03} : Digital literacy has no significant influence on democratic participation among senior secondary school students in the Gusau Educational Zone, Zamfara State.

RESEARCH METHODOLOGY

The study employed a descriptive correlation research design to examine the influence of digital literacy on democratic participation among secondary school students in the Gusau Educational Zone, Zamfara State. The population comprised all SS2 students in public schools within Gusau and Tsafe Local Government Areas, totaling 8,753 students. A sample of 365 students was selected using a stratified random sampling technique to ensure proportional representation across schools, class levels, and gender. Data were collected using a structured questionnaire titled "Digital Literacy and Democratic Participation Questionnaire (DLDPQ)". The questionnaire contained sections measuring digital literacy competencies, including access, evaluation, and use of digital tools, as well as indicators of democratic participation, such as involvement in school elections, civic discussions, and community engagement. The instrument was subjected to a pilot test, which produced a reliability index of 0.87, indicating high internal consistency and suitability for the study. Data were analyzed using descriptive and inferential

statistical techniques, including one-sample t-tests to determine the levels of digital literacy and democratic participation, and simple linear regression analysis to examine the influence of digital literacy on democratic participation. Ethical considerations were strictly observed throughout the study, including obtaining consent from school authorities, ensuring voluntary participation, and maintaining the confidentiality of respondents' information.

Results

Table 1: One sample t-test showing the level of Digital Literacy among secondary school students in Gusau Educational Zone (N = 348)

Variable	N	Test-value (μ)	Mean	SD	t- value	df	Sig. (P)	Decision
Digital Literacy	348	2.50	3.41	0.72	24.68	347	0.000	Reject H_{01}

The one-sample t-test results indicate that the level of digital literacy among secondary school students in the Gusau Educational Zone is significantly higher than the test value of 2.50. With a mean score of 3.41, students demonstrate a moderate to high level of digital literacy. The observed difference was statistically significant ($p = 0.000$), leading to the rejection of the null hypothesis (H_{01}), which stated that there is no significant level of digital literacy. These findings suggest that students in the study area possess a substantial level of competence in using digital tools and resources.

Table 2: One sample t-test showing the level of Democratic Participation among secondary school students in Gusau Educational Zone (N = 348)

Variable	N	Test-value (μ)	Mean	SD	t- value	df	Sig. (P)	Decision
Democratic Participation	348	2.50	3.18	0.69	18.37	347	0.000	Reject H_{02}

A one-sample t-test was conducted to examine the level of democratic participation among secondary school students in the Gusau Educational Zone. The results showed that students' democratic participation ($M = 3.18$, $SD = 0.69$) was significantly higher than the test value of 2.50, $t(347) = 18.37$, ($p = 0.00$). Consequently, the null hypothesis (H_{02}), which stated that there is no significant level of democratic participation among students, was rejected. This finding indicates that students actively engage in democratic processes and exhibit a meaningful level of participation in civic activities.

Table 3: Simple Linear Regression Analysis showing the influence of Digital Literacy on Democratic Participation among secondary school students in Gusau Educational Zone

Variable	B	Std. Error	Beta	t-value	Sig.
Constant	1.214	0.143	-	8.49	< .001
Democratic Participation	0.576	0.039	0.620	14.61	< .001

A simple linear regression analysis was performed to examine the influence of digital literacy on democratic participation. The results showed that digital literacy significantly predicts democratic participation, $\beta = 0.62$, $t(347) = 14.61$, $p < .001$. The unstandardized coefficient ($B = 0.576$, $SE = 0.039$) indicates that for every one-unit increase in digital literacy, democratic participation increases by 0.576 units. The intercept was also significant ($B = 1.214$, $SE = 0.143$, $p < .001$). These findings suggest that digital literacy has a strong and positive influence on students' engagement in democratic processes.

Discussion of Findings

The findings of this study indicate that secondary school students in the Gusau Educational Zone exhibit a moderate to high level of digital literacy, as reflected by a mean score of 3.41, which was significantly higher than the test value of 2.50. This suggests that students possess substantial competence in accessing, evaluating, and using digital tools effectively. This finding aligns with the study of Moses (2024), who reported that digital literacy among senior secondary school students in Nigeria significantly enhances their academic engagement. Similarly, Polizzi (2025) emphasized that critical digital literacy equips students to navigate information strategically, promoting responsible and informed decision-making. Likewise, as Izana and Rahayu (2022) in Indonesia and Costa and Oliver (2025), have also highlighted that digital literacy enables young people to engage actively in both online and offline civic practices. Additionally, Tambunan, Budimansyah, and Darmawan (2024) found that integrating digital literacy into civic education fosters more meaningful democratic engagement among students, reinforcing the importance of digital skills for participatory citizenship.

The findings revealed that students in the Gusau Educational Zone also demonstrate a significant level of engagement in democratic processes, with a mean score of 3.18, exceeding the benchmark value of 2.50. This suggests that students actively participate in school elections, civic discussions, and other forms of community engagement. This outcome is consistent with the findings of Barati (2023), who observed that youth social media engagement encourages both online and offline political participation. Trihastuti et al. (2025) similarly reported that students who use digital tools to explore civic topics develop greater awareness of their responsibilities as democratic citizens. Furthermore, research by Muringa and Adjin-Tetty (2024) indicated that media literacy enhances students' ability to

evaluate political information critically, thereby fostering confidence and motivation to participate in civic activities.

The regression analysis demonstrated that digital literacy significantly influences democratic participation, with a positive effect ($\beta = 0.62, p < .001$), indicating that higher digital literacy directly enhances students' engagement in democratic activities. This result corroborates the Digital Citizenship Theory (Ribble, 2008), which posits that digital literacy is a core element of responsible digital participation. Similar studies support this finding, showing that students with strong digital competencies are more likely to engage in student governance, policy debates, and civic discussions (Yuniarto, Abiyah, Sarah, & Ramadhani, 2025; Sheik Mohamed & Hermansyah, 2024; Waluyo, Setyoko, & Kurniasih, 2025). Danial, Iswandi, and Khoirusnaini (2023) also emphasized that integrating digital tools in democratic learning activities strengthens students' understanding of democratic values and their willingness to participate. Consequently, these findings indicate that digital literacy not only facilitates access to information but also empowers students to participate actively and responsibly in democratic processes, highlighting the critical role of structured digital literacy programs in secondary schools.

CONCLUSION

The study concludes that secondary school students in the Gusau Educational Zone, Zamfara State, possess a moderate to high level of digital literacy, which significantly enhances their engagement in democratic processes. Digital literacy was found to have a strong positive influence on students' democratic participation, indicating that students who are competent in accessing, evaluating, and using digital tools are more likely to participate meaningfully in civic and school-related activities. These findings underscore the importance of integrating digital literacy into educational programs to foster responsible and active citizenship among youths.

Recommendations

1. Schools in the Gusau Educational Zone should implement structured digital literacy programs to enhance students' skills in accessing, evaluating, and using digital information effectively.
2. Civic education curricula should incorporate digital tools and online platforms to encourage students' engagement in democratic activities.
3. Teachers should be trained to guide students in responsible and ethical use of digital technologies to prevent misinformation and promote informed decision-making.
4. Policymakers should ensure equitable access to digital devices and internet connectivity for all students to reduce disparities in digital literacy.

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