

# AN ASSESSMENT OF DIGITAL SECURITY, RIGHTS AND RESPONSIBILITIES SKILLS AMONG PRE-SERVICE SOCIAL STUDIES TEACHERS IN OGUN STATE

By

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## Abstract

This research assessed the skills related to digital security and the rights and responsibilities associated with digital citizenship among pre-service Social Studies teachers in Ogun State. The study examines the level of digital security and digital rights and responsibilities skills among pre-service teachers. The study was guided by two key questions: what is the level of skills acquisition regarding digital security among students?; what is the level of awareness concerning digital rights and responsibilities among Social Studies and Civic Education students? A survey research design was utilised for this investigation. All 100- and 200-level pre-service Social Studies teachers at Tai Solarin University of Education, Ogun State, were included in the study. A total of 293 students were randomly selected for participation through a simple random sampling method. Data collection was conducted using a self-structured questionnaire named “Digital Citizenship Skills Questionnaire” (DCSQ), which had a reliability coefficient of  $R=0.86$ . The gathered data were coded and analysed with descriptive statistics. The results indicated that pre-service Social Studies teachers demonstrated a low level of proficiency in digital security skills but exhibited a moderate level of understanding regarding digital rights and responsibilities. In the light of these findings, it is suggested that pre-service Social Studies teachers should be exposed to comprehensive training on digital security and digital rights and responsibilities to help them develop skills that qualify them as responsible digital citizens.

**Keywords:** Digital citizenship, Digital security, Digital rights and responsibilities, Pre-service teachers, Social Studies.

## Introduction

Social media sites and applications have multiplied since their introduction into the technology world. Social media sites like Facebook, WhatsApp, Telegram, TikTok, Instagram, Twitter, Youtube and so on are available on mobile phones which most of the pre-service Social Studies teachers have access to. There is the need to educate the students on how to handle and process online content, share information, and interact with others online. Social media is one of the most used digital platforms used by the young ones; however, the media contained unscreened contents that exposed the young ones to

psychological risks and abuses (Gazi et al., 2024; Mahadir et al. 2021). The rise of the internet in the last three decades has changed a lot of things, including the teaching and learning process in the world. Factually, every spectrum of human lives now faces challenges posed by the technology, and since the school can not live in isolation of the innovations in the society, the school must integrate technology into teaching and equip the students with skills of becoming effective digital citizens. The recent experience across the world and the realities brought by the Covid-19 pandemic have made technology more integrated into the teaching and learning

process. Therefore, helping the students to build positive digital experiences that will reshape their ideas and experiences and make them become digital citizens is now very important for their future and the country's sustainable development.

The reality in our society today is that students spend a lot of time connecting to digital technology. The digitalisation of all spheres of human life all over the world has led to a new innovation where the internet and digital media become an integral part of teaching and learning in our schools. The advancement in the area of information and communication technology, knowledge, and skills acquisition has put challenges on Nigerian citizens to transform themselves into global citizens through digital competencies (Christensen et al., 2013; Millar et al., 2018; Andika et al., 2019). In this modern age, the internet's availability has become a powerful medium through which citizens express their views publicly. It is important to make efforts in making the young ones in Nigeria become responsible, obedient, and successful digital citizens. Promoting active citizenship can only be effective when young people are exposed to the knowledge and skills that can make them become well-educated and active citizens. However, the misinformation promoted by digital platforms can make it difficult for the nation to achieve her salient objectives of producing effective and efficient citizens that are capable of contributing to national development. This study aims to assess young citizen levels of digital citizenship in terms of digital security and digital rights and responsibilities.

### **Literature Review**

Digital citizens exemplify how individuals should behave when utilizing digital tools in a suitable and responsible way. A digital citizen refers to the act of engaging with digital media to participate actively in societal and political affairs. The capacity of individuals to securely and responsibly utilise digital technologies

qualifies them as effective digital citizens, enabling them to become more active and respectful members of society. A digital citizen possesses the skills and knowledge necessary for efficient internet and digital technology usage. Such an individual can actively, responsibly, and consistently engage in community activities. Digital citizenship is characterised by a framework of appropriate guidelines and a sense of accountability when using technological tools correctly (Mahadir et al., 2021). Exemplary digital citizenship engages young learners, teaching them how to connect with one another, empathize, and establish lasting relationships through digital means (Prasetyo et al., 2021). Digital citizenship emphasizes the use of digital tools to foster civic engagement and address real or virtual challenges. Active digital citizenship motivates young individuals to practice ethical conduct. The notion of digital citizenship entails the capacity to manage and monitor one's actions through digital technologies, with a specific focus on aspects such as safety standards, ethics, norms, and cultural considerations (Isman & Gungoren, 2014). The primary objective of digital citizens is to raise informed individuals who understand their responsibilities in both their online and offline lives. Digital citizenship can be understood as a collection of skills required to appropriately engage in activities within the digital realm while maintaining a balance between online and offline existence (Fingal, 2019).

Innovation and advancements in technology have resulted in significant changes across all aspects of human life. One major advancement is the digital technology revolution. The swift expansion of digital technologies has enhanced how we process, distribute, and access information (Mahadir et al., 2021). Nonetheless, this growth has also led to social issues, exposing younger individuals to risks such as abuse, discrimination, cyber threats, and identity theft, which can negatively affect their mental

health (Prasetyo et al., 2021). Poor digital citizenship includes actions like cyberbullying, irresponsible use of social media, and a lack of understanding of safe internet practices. Also, scholars' attention has turned to the ethical dilemmas that digital technologies pose for individual behaviour and citizenship conduct (Frau-meigs et al., 2019). In classrooms around the world, particularly in developed nations, tools such as tablets and laptops have now become an integral part of educational processes. The concept of digital citizenship encourages students to make informed choices within the online environment. A key focus of digital citizenship is to empower students to protect themselves online and build positive relationships. Additionally, it offers students innovative avenues to cultivate the values, attitudes, skills, and knowledge required for active participation and responsibility in society. Responsible use of digital technology and the internet enables citizens to engage meaningfully in societal and political activities. Within education, technological innovations have facilitated learning without boundaries. Online classrooms allow students to access educational content, submit assignments, and interact freely with teachers and peers. Despite the significant benefits that digital platforms provide in education, misuse can occur if students are not properly instructed on how to access and use information online. This is where the principles of digital citizenship become essential in educating youth about digital literacy, security, legalities, and their rights and responsibilities. Digital citizenship empowers students with the skills to seek out information and engage with others online, emphasizing the importance of evaluating information and understanding its implications responsibly (Prasetyo, 2021). Social Studies and Civic Education was introduced into the Nigeria school curriculum for the purpose of meeting specific human needs and societal aspiration of building

among the people a morally upright and development-conscious citizenry; re-shape the socio-political life through the orientation of the citizens toward participatory democracy in their quest for nationhood and inculcating in the citizenry consciousness about their rights and obligations within their environment with the ultimate objective of making a better world out of the current world system while earning a living (Omotoseye, 1999; Ogunyemi, 2014). Teaching of Social Studies and Civic Education in schools should be tailored towards encouraging students to think critically, analyse and improve not only students' performance but also enhance their civic engagement within and outside the school. Acquiring the appropriate civic knowledge, skills, and attitudes, as well as engaging online and developing media literacy, is influenced by teachers' classroom methods (Dias-fonseca & Pother, 2016; Japar et al., 2019). Social Studies and Civic Education are designed to prepare youth for their roles and responsibilities as active citizens. It is essential that educators teaching this subject possess knowledge and innovative skills related to learning through media. The younger generation, characterized by their high levels of curiosity, is particularly enthusiastic about utilizing digital tools during their developmental stages. Consequently, there has been a notable rise in the use of digital tools among young children, highlighting the importance of raising their awareness about digital citizenship (Dedebali, 2019). One of the duties of education systems in which Social Studies and Civic Education are key to is to raise effective and responsible citizens that are capable of contributing to national development. It is almost difficult for students to handle complex and growing cyber threats without the guidance of more experienced people. In recent times, there has been concern by researchers and stakeholders about the dangers that assessing digital gadgets possess to young ones, therefore

teachers of Social Studies and Civic Education must consider how to protect young ones by teaching them how to properly use digital technology meaningfully and reduce the harms of digital innovations (Santosh, 2024; Zhong & Zheng, 2023).

Keser and Soykan (2018) investigate the levels of digital citizenship among pre-service teachers based on various factors (digital communication and digital literacy) with a focus on students from Atatürk Education Faculty at Near East University. The results reveal that the digital citizenship level of these future educators ranges from good to very good, with an increase in tool usage positively impacting their digital citizenship, while students' economic conditions facilitate their access to digital tools, knowledge, and experiences related to online shopping. Andika et al. (2019) evaluate the application of digital media in the civics education curriculum to enhance the digital literacy of Santri amid the disruptions brought about by technology. Their findings highlight differing statistical attitudes and public perceptions regarding policies for utilising technological advancements. Additionally, the evolution of digital literacy skills is recognised through the educational and assessment processes. The enhancement of digital literacy skills during civics education is implemented with digital media, effectively aiding Santri in honing their technological skills necessary for information retrieval and utilization. Dedebali et al. (2019) analyse the views of Social Studies teacher candidates regarding digital citizenship at Ege University in Turkey. The study revealed no significant statistical differences related to gender, yet notable disparities in digital citizenship levels among teachers were found depending on factors such as personal computer ownership, age, and duration of computer experience.

### **Theoretical Framework**

The theoretical foundation for this research is the theory of change, which originated in the

United States during the 1990s. This theory is built upon social program practices, evaluations, and evidence-based social approaches (Stein & Valters, 2012). It outlines how a specific intervention is expected to lead to particular developmental changes through causal analysis grounded in existing evidence (United Nations Development Group, UNDG, 2017). This theory aids in pinpointing solutions that effectively tackle the underlying causes of issues hindering progress and informs decision-making regarding necessary actions. Moreover, it facilitates the identification of fundamental assumptions and potential risks that must be thoroughly understood and re-evaluated to ensure the approach contributes to the intended changes. The model particularly emphasizes how an initiative—whether it be a policy, program, strategy, or project—leads via a sequence of early and intermediate results to the desired outcomes (Serrat, 2017). Advancements in technology have resulted in increased digital engagement among youth, necessitating mindful digital practices. The theory of change and the concept of digital citizenship emphasize informed social practices, establishing its relevance to this study.

### **Statement of the Problem**

Societal challenges presented by technological advancements affect how young individuals are groomed to become responsible adults. Technological progress has heightened risks for students regarding privacy, safety, abuse, and crime, among other issues. The social complications arising from the use of digital tools by youth warrant attention from all educational stakeholders. Although digital tools offer significant benefits in education, the inconsistent regulations that permit teenagers to access adult content online pose challenges for guiding them in acquiring the skills needed to navigate such content effectively. Citizens



require information for meaningful engagement in all aspects of life. The adverse effects of digital tools, including the digital divide, identity theft, personal information privacy issues, cyber fraud, and cyber bullying, must be addressed. The idea of digital citizenship is well-established in developed nations, emphasizing the need for responsible engagement in the digital realm. Developing countries like Nigeria require increased awareness to effectively regulate and guide young citizens in managing uncensored online content. Despite the promise of digital citizenship in equipping youth with skills to become responsible individuals, awareness of digital citizenship remains low among young people in Nigerian society. This study, thus, evaluates the perceptions of pre-service Social Studies Civic Education teachers concerning digital citizenship skills in Ogun State.

### **Objectives**

1. Assess the knowledge of Social Studies and Civic Education students on digital security
2. Examine the awareness of Social Studies and Civic Education students on digital rights and responsibilities

### **Research Questions**

1. What are the levels of pre-service Social Studies and Civic Education teachers in skills' acquisition for digital security?
2. What are the levels of awareness of Social Studies and Civic Education students on digital rights and responsibilities?

### **Method and Materials**

The research utilised a descriptive research approach. This approach is effective in gathering the perspectives of students regarding digital citizenship competencies, particularly in the areas of digital security,

rights, and responsibilities. The study's population consisted of all Social Studies students in 100 and 200 levels at Tai Solarin University of Education, located in Ogun State. The sample for this study included two hundred ninety-three (293) students. Social Studies students were specifically chosen for this study because it aimed to evaluate digital citizenship abilities among pre-service students in Social Studies and Civic Education. Participants in the research were selected through a simple random sampling method. The tool employed for this research was a self-created questionnaire named the "Digital Citizenship Skills Questionnaire" (DCSQ). This questionnaire was constructed based on the research questions that needed to be addressed in the study. It consisted of 21 items. Section A of the questionnaire was formatted with two response options: Yes and No, while Section B utilized four response options: Always, Often, Sometimes, and Never. The questionnaire's content and face validity were established by sharing a draft version with two specialists in the field of testing and measurement for evaluation and revisions. This was done to ensure that the instrument was appropriate in terms of vocabulary, organization, clarity, and relevance. Modifications were made based on their feedback. Additionally, a field test of the instruments was conducted at a different institution outside the study region. The reliability coefficient of the instrument was assessed using Cronbach's alpha, which yielded a result of 0.86. Data obtained from the study were coded and processed using descriptive statistical methods, including mean and standard deviation, to address the research questions posed in the study.

### **Results**

**Research Question 1:** What are the levels of pre-service Social Studies and Civic Education teachers in skills' acquisition for digital security?

**Table 1:** Description of the levels of Social Studies students' acquisition of digital security skills.

| S/N | Items   | N   | True | %      | False | %      |
|-----|---|-----|------|--------|-------|--------|
| 1.  | I don't share information that I can't substantiate in an online setting              | 293 | 122  | (41.6) | 171   | (58.3) |
| 2.  | I know how to protect my online personal information                                  | 293 | 140  | (47.8) | 153   | (52.2) |
| 3.  | I take actions for my personal online security  | 293 | 168  | (57.3) | 125   | (42.7) |
| 4.  | I am aware of unsafe files that can threaten my devices                               | 293 | 132  | (45.1) | 161   | (54.9) |
| 5.  | I am conscious of not sharing personal information with strangers on digital platform | 293 | 110  | (37.5) | 183   | (62.5) |
| 6.  | I always check privacy setting on social media  | 293 | 138  | (47.1) | 155   | (52.9) |
|     | <b>Total</b>  |     | 810  | (46.1) | 948   | (53.9) |

Table 1 above show pre-service Social Studies teachers' opinion on their acquisition of digital security skills. Item 3 which states that "I take actions for my personal online security" recorded highest percentage 57.3% of aggregate opinion on the acquisition of digital security skills. All other items show negative response from the respondents. The

total percentage of 53.9% showed that majority of the students had low acquisition of digital security skills.

**Research Question 2:** What are the levels of awareness of Social Studies and Civic Education students on digital rights and responsibilities?

**Table 2:** Description of the awareness of Social Studies and Civic Education students on digital rights and responsibilities

| S/N | Items   | N   | True | %      | False | %      |
|-----|---|-----|------|--------|-------|--------|
| 1.  | I report inappropriate behaviour in digital environments                  | 293 | 144  | (49.1) | 149   | (50.9) |
| 2.  | I am aware of private rights of online users                              | 293 | 123  | (42.0) | 170   | (58.0) |
| 3.  | I am aware of my responsibilities why using technology                    | 293 | 150  | (51.2) | 143   | (48.8) |
| 4.  | I always use online materials after getting permission                    | 293 | 102  | (34.8) | 191   | (65.2) |
| 5.  | I am aware of the equality of rights of all users in digital environments | 293 | 129  | (44.0) | 164   | (56.0) |
| 6.  | I understand rules in digital environments                                | 293 | 115  | (39.2) | 178   | (60.8) |
|     | <b>Total</b>  |     | 763  | (43.4) | 995   | (46.6) |

Table 2 above shows Social Studies and Civic Education students' opinion on their levels of awareness of their digital rights and responsibilities. Item 3 which states that "I

take actions for my personal online security" recorded highest percentage of 51.2% of aggregate opinion on the awareness of digital rights and responsibilities. The

aggregrate opinion of respondents showed average level of awareness of digital rights and responsibilities, although, most of the students were aware of their rights and responsibilities while online.

### Discussion of Findings

The research examined the level of understanding regarding digital security, as well as the rights and responsibilities of pre-service Social Studies teachers in Ogun State. The results related to the first research question indicates that majority of pre-service Social Studies teachers shared unverifiable information online and did not adequately protect their personal information. Furthermore, the findings reveal that these pre-service teachers had limited awareness of unsafe files, tended to share personal details with strangers, and often neglected to review their privacy settings on digital platforms. Similarly, Andika et al. (2019) find that students possessed some digital literacy skills, although their research did not specify the extent of skill acquisition. Additionally, the findings of Keser and Soykan (2018) demonstrate a favorable development of digital literacy and digital communication among the observed students. This study's findings may stem from factors such as the access to low levels of digital literacy, inadequate knowledge of computer usage and poor digital literacy. Specifically, the findings indicated a low level of digital security skills among the participants.

The results pertaining to the second research question revealed that a significant number of pre-service teachers are unaware of their digital rights and responsibilities, often using online resources without proper permission. Moreover, the findings show that these pre-service teachers lack awareness of the equality of rights among all users and do not internalize the rules of digital spaces. This is in contrast to the findings of Dedebali et al. (2019), who identified notable differences in digital citizenship levels among teachers. The findings in this study may be attributed to the low level of awareness among pre-service teachers regarding the rules and regulations

that govern digital environments. In concrete terms, the results indicated an average level of awareness among pre-service teachers concerning their digital rights and responsibilities when engaging online.

### Conclusion

The research evaluated the level of awareness about digital security, rights, and responsibilities among pre-service Social Studies teachers in Ogun State. The findings highlighted a low level of digital security skills among the participants. It was evident that many pre-service Social Studies teachers remain unaware of how to protect their personal information online and often disclose personal details to strangers in digital spaces. The findings related to the second research question indicated an average awareness of pre-service teachers regarding their digital rights and responsibilities in an online context. This suggests that most students have not recognised that the rights and responsibilities applied in the physical world also significantly operate in the online environment. The findings illustrate a gap that needs to be addressed to cultivate effective and responsible digital citizens.

### Recommendations

Based on the findings it is recommended that:

1. The school authority must make it a duty to raise the consciousness of pre-service Social Studies teachers on the rules and regulations guiding digital devices through seminar and orientation programme. This is to make pre-service teachers develop good digital security skills that will enhance their levels of digital citizenship.
2. Lecturers of Social Studies should make it part of their classroom interaction to educate the pre-service teachers on their rights and responsibilities while online.
3. Government through the national orientation agencies should enlighten the pre-service teachers on the roles of digital security, digital rights and responsibilities in developing good digital citizenship in their future students.

## References

- Andika, L.P., Muchtaran, M., & Triana, R. (2019). Using digital media in Civics Education learning subject to develop Santri's digital literacy at the age of technology disruption. *International Journal of Engineering and Advanced Technology*, 8(5), 818-823.
- Christensen, A., Clayton, R., & Scott, A.E. (2013). *Seeing what's next: Using the theories of innovation to predict industry change*. Harvard Business Press.
- Dedebali, N. C., & Dasdemir, I. (2019). Social Studies teacher candidates' perception of digital citizenship. *International Journal of Educational Methodology*, 5(3), 465-477. <https://doi.org/10.12973/ijem.5.3.465>
- Dias-fonseca, T., & Pother, J. (2016). Media education as a strategy for online civic participation in Portuguese schools. *Media Education Research Journals*, 24, 9-17.
- Fingal, J. (2019). The 5 competencies of digital citizenship. *International Society for Technology in Education (ISTE)*. <https://www.iste.org/explore/digital-citizenship/5-competencies-digital-citizenship>.
- Frau-meigs, D., O'Neil, B., Soriani, A., & Tome, V. (2019). *Digital citizenship education: Overview and new perspectives*. Council of Europe
- Gazi, M.A.I., Rahaman, M.A, Rabbi, M.F., Masum, M., Nabi, M.N., & Senathirajah, A.S. (2024). The role of social media in enhancing communication among individuals: Prospects and problems. *Environment and Social Psychology*, 9(11), 2979
- Isman, A., & Gungoren, O.C. (2014). Digital citizenship. *The Turkish Journal of Educational Technology*, 13(1), 73-77.
- Japar, M., Fadhillah, D.N., & Syarif, S. (2019). Civic Education through e-learning in higher education. *Advance in Social Science Education and Humanities Research*, 335, 505-511.
- Keser, H., & Soykan, F. (2018). A study on the digital citizenship level of preservice teachers according to diverse variables. *Contemporary Educational Researches Journal*. 8 ( 4 ) , 1 5 8 – 1 7 3 . <https://doi.org/10.18844/cerj>
- Mahadir, N. B., Baharudin, N. H., & Jamil-Osman, Z. (2021). Digital citizenship literacy knowledge among undergraduates of Sultan Idris Education University: Preliminary studies. *International Journal of Academic Research in Progressive Education and Development*, 10(2), 416–434.
- Millard, A., Baldassar, L., & Wilding, R. (2018). The significance of digital citizenship in the wellbeing of older migrants. *Public Health*, 158, 144- 148.
- Ogunyemi. B (2014). The search for good citizens and the curriculum as a compass. The 69th *Inaugural Lecture* of Olabisi Onabanjo University, Ago-Iwoye.
- Omatseye, O. J. (1999). Re-thinking the role of citizenship education in Nigeria. Pre-School Learning. *Nigerian Journal of Citizenship Education*, 1 (1), 105-120.
- Prasetyo, W. H., Mahadir, N.B., Tan, B.P., & Sumardjoko, B. (2021). Digital citizenship trend in educational sphere: A systematic review. *International Journal of Evaluation and Research*, 10(4), 1192-1201.
- Santos, K. (2024). *Ethical considerations in digital education*. In Online and Digital Education. Crosby Books.
- Serat, O. (2017). *Knowledge solution*. Asian Development Bank.
- Stein, D., & Valters, C. (2012). *Understanding theory of change in international development: A review of existing knowledge*. The Asian Foundation.
- United Nation Development Group (2017). *Theory of change*. United Nation.
- Zhong, J., & Zheng, Y. (2023). What it means to be a digital citizen: Using concept mapping and educational game to explore children's conceptualization of digital citizenship. *Heliyon*, 9(9), <https://doi.org/10.1016/>