

Relationship Between Media Literacy Education and Critical Thinking Among Undergraduates Social Studies Students

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Abstract

The rapid spread of online disinformation give out major problem to rational nationality and democratic participation, especially among university students who are involved clients of digital information. This study explores the capacity of media culture education in ensuring the capability of pre-service Social Studies students in Osun State, Nigeria, to challenge electronic disinformation and evolve analytical reasoning skills. This study adopted a descriptive research design, data were gathered from 150 undergraduates Social Studies students through a self-designed questionnaire focused on sensitivity of media literacy's effect. Chi-square data examination was used to determine associations among media knowledge education, disinformation discovery capability, and analytical reasoning proficiency. The findings showed that 78% of participants recognized a medium association between online literacy education and their capacity to discover disinformation and think analytically, while 22% disagreed. Distribution free tests established this association was statistically significant, call attention to the major role of digital literacy in empowering students with necessary critical thinking skills. Also, information literacy education was found to crucially impact students' ability to critically appraise online content and resist disinformation. Based on these findings, the study proposed the incorporation of holistic digital literacy programmes into the Social Studies curriculum, focused training for teachers to efficiently and effectively deliver these plan of actions, and partnership policies between institutions of higher learning, government, and stakeholders to enhance cyber literacy. Such endeavour will promote students' mental abilities, strengthen them as refined clients of media information, and fortify democratic engagement in Nigeria's expanding information society.

Keywords: Media Literacy Education, Misinformation, Critical Thinking, Undergraduate Students, Social Studies

1. Introduction

In the 21st century, the virtual world has reshaped how individuals get, disseminate, and appraise information. While these improvements had provided channel for learning and civic

participation, they have also ensured the roll out of trumped-up story and disinformation, posing a major threat to informed judgement and participatory governance (Wardle & Derakhshan, 2021). In every part of the world, online alternative fact has been ascribed to political difference, depletion of confidence in government institutions, and community health crises (Guess, A., Nyhan, B., & Reifler, J. 2020). The importance of tackling this problems has led to growing academic and prime concern in dispense citizens with the needed proficiency to crucially appraise information in the digital world.

Universally, cyber literacy education has been pinpoint as a crucial tool to change the story of fake new, ensuring learners to earnestly evaluate information starting point, recognise biases, and apply critical reasoning in decision-making (Hobbs, 2022). In Nigeria, the concern of fake news is particularly enormous due to proliferation of electronic platforms, shallow information verification culture, and limited digital literacy among chunk of the population (Okon, 2022). False stories have affected participatory governance, promote inter-communal crises, and ensured socio-political balance. Pre-service Social Studies teachers, are both vulnerable to web content and optimally situated as prospective managers, community organisers, and initiators of opinions. Research suggests that pre-service Social Studies teachers often lack the required skills to pressingly appraise online content, confirm sources, and make a difference between authentic and fake content (Ibrahim & Yusuf, 2023). This deficiency is highly disturbing for Social Studies students, whose future roles may involve educating, advocative, and strategic leadership. However, without needed exposure in critical evaluation of information history, they prone to becoming inactive clients or even accidental promoter of disinformation content. (Okunola & Ojedokun, 2023)

Social Studies, as a subject, is particularly designed to mitigate the threat of fake news because it is preoccupied with the nurturing of needed civic competence, democratic principles, and critical thinking skills (National Council for the Social Studies, 2022). In the view of Mason & Metzger, (2021) blending digital knowledge education within Social Studies curricula can ensure students to interrogate, examine, analyse, and authenticate information, propelling deep thinking and logical civic engagement. Digital literacy education does not only focus on technological innovation but also on developing inquisitive mind that help learners to manoeuvre critical media terrain premeditatedly, morally and responsibly. However, the prevalent presence of fake news tackle these goals by misreporting students' perceptions, impacting attitudes, and shaping ideas based on erroneous data (Olatunji & Akinyemi, 2021).

In Osun State, where divergent cultural heritage, political dialogue, and social and economic conditions cut across, pre-service Social Studies teachers meet both the moderate and risks of a majorly compromised environment. With the raising incorporation of electronic apparatus and digital access into regular academic and social interaction, the capacity to identify original information sources has become very indispensable. Studies by Usman, 2024; Adelabu & Ojo, 2023; Adeleke & Olayinka, (2022) have reveal that premediated online literacy initiatives

specially enhance students' critical thinking skills, unwillingness to accept disinformation, and civic participation. However, in Nigeria, the integration of internet literacy into higher education curricula remains inadequate, divided, and often seen as an optional skill rather than a core competency (Ogunleye & Ayoola, 2024). The gap, therefore, lies in the insufficient execution of logical online literacy education directed at affecting pre-service Social Studies teachers in Osun State with the desired critical thinking competences necessary to walk the digital information landscape effectively.

Based on this assumption, this study, therefore, examines the purpose of digital literacy education in enhancing informed decision making competencies among university Social Studies students in Osun State. It hope to bring forward scientific evidence judgement into how imparting students with media education and competencies that can serve as a major tool in tackling electronic disinformation, promoting rational citizenship, and reinforcing democratic behaviour. By situating the research within the Nigerian sub-cultural and educational perspective, the study challenge both a demanding community issues and contributes to the world conversation on media education as a 21st-century civic imperative. The following objectives were raised to guide the study: examine the effectiveness of digital literacy education in combating digital misinformation among undergraduate Social Studies students; examine the effect of digital literacy education on the development of critical thinking competencies among undergraduate Social Studies students, and determine the association between electronic literacy education, students' capacity to discover digital disinformation, and their critical thinking skills.

2. Research Questions

The following research questions were formulated to provide framework for the study,

- i. To what extent does digital literacy education affect the capacity of undergraduate Social Studies students to identify and tackle digital disinformation?
- ii. How does online literacy education impact the development of analytical thinking competence among undergraduate Social Studies students?
- iii. What is the connection between digital literacy education, students' ability to identify media misinformation, and their critical thinking skills?

3. Methods

This study employed a descriptive research design to investigate the effect of digital literacy education on the ability to discover electronic disinformation and the development of reflective inquiry skills among pre-service Social Studies teachers in Osun State, South-West, Nigeria. The research design adopted was considered appropriate because it allowed the researcher to gather data from a targeted population without thinker with the study variables, thereby

enhancing a true colour of prevailing conditions. The population for the study composed of all Social Studies students in selected universities within Osun State. From this population, a sample size of 150 participants was drawn using a multi-step sampling strategy. First, institutions offering Social Studies were picked out and catalogued. Thereafter, entire classes of pre-service Social Studies teachers from various levels were consciously selected to guarantee sufficient coverage of respondents with varying degree of familiarity to technology literacy concepts. A self-designed questionnaire was used to gather data and was divided into four parts. Part A focused on items relating to bio-data of the respondents, while part B explored students' familiarity to and comprehension of digital literacy education, part C of the questionnaire determined their capacity to discover and combat digital disinformation, while part D evaluated their critical thinking skills. The validity of the questionnaire was determined by subjecting the draft questionnaire to peer review in Social Studies and Measurement and Evaluation. Their comments led to needed amendments to boost quality, precision, applicability, and sequence with the postulated research objectives. The reliability of the instrument was resolved through a pilot study involving 30 undergraduate Social Studies students from a college outside the scope of the study, and the Cronbach's alpha coefficient attained was 0.82, showing a high degree of internal dependability. Data gathered were analysed using Chi-square at a 0.05 level of significance.

4. Results

Research Question 1: To what extent does media literacy education influence the ability of undergraduate Social Studies students to detect and combat digital misinformation?

Table 1: Influence of media literacy education on students' ability to combat digital misinformation

Response category	Observed (O)	Expected (E)	O – E	(O – E)² / E	df	P
Agree	103	75.0	28.0	10.45		
Disagree	47	75.0	–28.0	10.45		
Total	150	150	—	20.90	1	<0.001

A Chi-square test indicated that the division of responses differed remarkably from an equal distribution. Majorly, 103 participants (68.7%) agreed that digital literacy education enhanced their capacity to confront fake news, compared with 47 participants (31.3%) who disagreed, $\chi^2(1, N = 150) = 20.91, p < .001$. In short, majorly more students agreed that media literacy education positively influenced their disinformation-detection prowess.

Research Question 2: How does media literacy education affect the development of analytical skills among undergraduate Social Studies students?

Table 2: Chi-square Analysis of the Impact of Media Literacy Education on Development of Analytical Thinking Skills

Response	Observed (O)	Expected (E)	$(O - E)^2 / E$	df	P
Agree	115	112.5	94.86		
Disagree	35	112.5	53.01		
Total	150	—	147.87	1	<0.005

The Chi-square result ($\chi^2 = 147.87$, $df = 1$, $p < 0.05$) shows a marked relationship between digital literacy education and the development of logical thinking competence among participants. This indicates that the high percentage of agreement (86%) is not due to chance but reveals a real insight among respondents that electronic literacy education positively determine students’ capacity to reason logically.

Research Question 3: What is the relationship between media literacy education, students’ ability to identify digital disinformation, and their critical thinking skills?

Table 3: Relationship Between Media Literacy Education, Students’ Ability to Detect Digital Misinformation, and Critical Thinking Competence

Relationship Level	Frequency (n)	Percentage (%)	χ^2	df	P
Low Relationship	(1.00–2.49)	12	8.0		
Moderate Relationship	(2.50–3.49)	117	78.0		
High Relationship	(3.50–5.00)	21	14.0		
Total	150	100	145.28	12	< .001

The chi-square test revealed a substantial significant linkage between digital literacy education, students’ ability to identify online disinformation, and their critical thinking skills, $\chi^2(2, N = 150) = 145.28$, $p < .001$. The larger proportion of the participants (78%) perceived a medium association

among these variables, 14% showed a high connection and only 8% indicated a low association. This shows that digital literacy education plays a crucial role in mobilising the students to detect fake news and ensure their logical thinking abilities. The massive demography towards the moderate classification reveal a collective view that, while influential, the association could be further build up through targeted initiatives such as integrating digital literacy into school curricula, encouraging reworking practices, and promoting discovery-oriented learning strategies.

5. Discussions

The computed Chi-square value ($\chi^2 = 21.01$, $df = 1$, $p < 0.05$) based on research question 1 showed a statistically significant difference between the two response categories. This result indicates that the major percentage of participants were not only inclined to agree but that this agreement was not due to chance, thereby emphasizing the strong perceived significance of online literacy education in challenging disinformation. These findings line up with the position of Hobbs (2022), who argued that media literacy furnish individuals with critical thinking skills needed to evaluate the dependability of online information sources. Similarly, the finding also corroborated by the study conducted by Okon (2022) who discovered that integrating digital literacy into formal education promotes adaptability against disinformation by promoting fact-checking competence and distrustful inquiry. Again, this finding aligned with observation of Ibrahim & Yusuf (2023) who opined that targeted electronic literacy programmes profoundly impacts youths' proficiency to spot fake political content on social networking sites. The present findings are in accordance with these studies, underscoring that participants who subscribed to the impact of information literacy education may have benefitted from improved reasonable strainers, stocking them with more confidence to better walk today's complex digital information environment.

The statistically significant connection also stress the imperativeness of institutionalising media literacy education, particularly within the framework of post-secondary education curricula in Nigeria. With the swift expansion of disinformation through social networks and multimedia messaging apps, the role of structured, on-the-job training in digital literacy cannot be overemphasised. As Adelabu & Ojo, (2023) posited, equipping citizens with the desired skills to logically examine internet content is a major method in guarding political participation and logical decision.

Finding from research question 2 shows that a larger proportion of participants (86%) agreed that media knowledge education has a critical impact on the acquisition of logical thinking competencies, while only 14% disagreed. This finding corresponds with earlier studies which have persistently demonstrated that media literacy instruction fuels critical thinking abilities and ensures the ability of learners to appraise access to information essentially (Hobbs & Mihailidis, 2022; Makinde, 2023). It also in consistent with the observation of Aufderheide, (2021), who posited that media literacy empowers learners with needed skills to identify bias, assess credibility, and interpret media messages within socio-political and cultural contexts, all of which are core

components of critical thinking. The significant linkage found in this study suggests that participants not only identify the essence of media literacy but also cherish its role in equipping individuals to walk the complications of the modern information landscape

In the Nigerian educational environment, this is essentially germane given the raising problems about disinformation, fake news, and newspeak in both local and modern media spaces. As noted by Hobbs (2022), incorporating media literacy into school curricula is decisive essential for propelling responsible citizenship and ensuring democratic engagement. The current finding supports the argument that equipping learners with media literacy competencies directly contributes to their ability to think rationally and make informed decisions in the view of Olayinka and Yusuf (2022). In general, the empirical evidence and participants views reveals that media literacy knowledge plays a major role in promoting critical thinking, and by extension, it can be an innovative instruments in educational improvement and civic engagement

The finding from third research question shows that there is a considerable discernment among participants pertaining to the relationship between media literacy education, students' ability to identify electronic disinformation, and their logical reasoning skills. With 78% perceiving a medium linkage, this in line with the discovery of Ogunleye & Ayoola, (2024) emphasising the crucial role of media education in ensuring analytical reasoning skills and tackling the danger of disinformation. The finding was further confirmed by Adeleke & Olayinka, (2022) who put forward that low media education levels make individuals vulnerable to manipulation through disinformation, thereby impacting electoral choices and political divide. Furthermore, the finding also aligned with the argument of Usman, (2024) who found that students' understanding of information education and analytical thinking significantly suggested their effectiveness in tackling disinformation, emphasising the need for educational reforms to promote these skills. These findings suggest that incorporating cyber literacy education into the curriculum can play a crucial role in developing students' critical thinking skills and their capacity to identify electronic disinformation. Ensuring required skills, educational institutions can kick in to creating a more responsible and critically engaged citizenry, well-furnished to be in charge of the complexities of the digital age.

6. Conclusion and Recommendations

6.1 Conclusion

This research has suggested that media knowledge education majorly impacts pre-service Social Studies teachers capacity to identify digital disinformation and promotes their analytical thinking competence. The large percentage of participants perceived a medium association between media literacy and these key cognitive skills, underlining the essence of incorporating media literacy programmes within higher education curricula. Given the prevalent expansion of disinformation in today's digital environment, equipping students with the skills to critically

appraise information is essential for promoting effective and responsible citizenship. Consequently, educational stakeholders and institutions in Osun State should prioritise the development and implementation of all inclusive media literacy programmes to reinforce students' analytical abilities and resilience against digital disinformation. This will not only improve academic performance but also contribute positively to societal dialogue and democratic participation.

6.2 Recommendations

Based on the findings of this research, several fundamental suggestions are put forward to ensure the productiveness of media knowledge education in tackling digital disinformation and promoting deep thinking among undergraduate Social Studies students in Osun State.

First, higher institutions should incorporate holistic media literacy programmes into the Social Studies curriculum. This blending will provide students with the needed competencies to critically appraise digital content, distinguish fake news, and develop rational opinions. The curriculum should be updated periodically to demonstrate current trends in digital media and disinformation strategies to guarantee its continued value and potency.

Second, teachers and educators should be upskilled and stocked with the pedagogical instruments and knowledge needed to effectively carry out media literacy education. Ongoing training programmes concentrating on media literacy, analytical reasoning, and instructional methods will empower teachers to generate engaging and effective learning experiences.

Third, partnership efforts between universities, stakeholders, government establishments, and civil society organisations should be encouraged to promote campaign to raise awareness and workshops targeted at ensuring media literacy good away off the classroom. Such dynamism can promote a culture of reflective inquiry and amenable media utilisation among the wider student audience.

Lastly, policymakers should map out resources and support for research and activities that comb to upgrade media literacy and critical thinking competencies among Nigerian youths. By providing capital in such programmes, they can subscribe to building a more reasonable and resilient society capable of unyielding to the adverse effects of digital disinformation. Executing these suggestions will not only enhance students' academic attainments but also strengthen inclusive governance and collective bond in an increasingly digital world.

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