

## The influence of media literacy on students' social protection in adult and vocational education policy in Rivers State, Nigeria

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### Abstract

*This study examines the effect of media literacy on students' social protection in adult and vocational education policy in Rivers State, Nigeria, based on experiences from the COVID-19 pandemic. The following three research questions and corresponding null hypotheses were formulated. A quasi-experimental design with an experimental group and a control group was used. A sample of 180 learners was randomly selected from a total of 2,378 adult learners in six adult literacy centers. The data collection instrument used in this study was the Learners Social Protection Test (LeSPT), which was developed by the researchers and tested for face and content validity by three experts. A reliability coefficient of 0.87 was obtained through the application of the Kuder-Richardson formula (K-R20). The data collected were analyzed using mean, standard deviation, and analysis of covariance. Findings indicated that students who received media literacy instruction showed significantly greater positive effects on social protection compared to students who only received basic literacy instruction.*

**Keywords:** media literacy, social protection, students, adult and vocational, education policy

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### Introduction

On March 12, 2020, the World Health Organization (WHO) declared coronavirus disease 2019 (COVID-19) a pandemic. In response, numerous countries implemented extensive closures of public gatherings, including schools, places of worship such as churches and mosques, and markets, as part of their efforts to safeguard public health and mitigate the spread of the virus. This sanction by many governments of the world was seen as a measure towards reducing the rate of transmission among their citizens. In Nigeria, the various levels of education, namely primary, secondary and tertiary were closed with the introduction of electronic learning. This effort by the government fails to recognize the informal education environment where most adult learners are regarded as vulnerable owing to their poor social status. The negligence of such acts by the government is linked to the pluralism theory of Robert Dahl and David Truman, conflict theory (Karl Marx) and public choice theory (James Buchanan & Gordon Tullock), among others. Of interest in the present study is the public choice theory, which offers insights into how the self-interested behavior of individuals in government,

institutions and society can influence policy decisions regarding expanding the learning aid to the informal education system. Many learners in Nigeria who enrolled in a basic literacy program to acquire basic literacy skills for maintaining an average standard of living were significantly impacted by the abrupt disruption of their education. This disruption hindered their ability to comprehend and apply literacy skills in their daily lives. The adult learners in this context are mature individuals who undergo training in an informal setting to acquire essential literacy skills in reading, writing, and arithmetic, allowing them to meet their family and societal demands. Additionally, the use of media has emerged as a valuable resource for expanding education opportunities and enhancing quality of life (Lu et al., 2017). Thus, the continuous improvement of individuals in an ongoing learning and development process makes the acquisition of media literacy skills germane in both formal and informal settings (Ciurel, 2022) and among various categories of individuals (Fedorov et al., 2016; Moreira, 2012). Furthermore, learners' acquisition of media literacy is necessitated by the fact that they are regarded as one of the groups with low status, receiving limited resources (Kawamorita et al., 2020). This media literacy knowledge will likely unlock learners' business opportunities even amid pandemics.

Media literacy skills encompass the ability to effectively use media to access and make informed choices about content. These skills involve understanding the creation of media content, analysing media techniques and messages, effectively using media to communicate, avoiding harmful media content and services, and utilising media for democratic rights and civic purposes (Bachmair & Bazalgette, 2007). Integrating media literacy into modern education can cultivate a stronger relationship between technology, educators, and students (Manzoor, 2015). It is a fundamental part of achieving a media and information society. Hence, integrating media literacy into modern education can cultivate a stronger relationship between technology, educators, and students. Traditionally, media literacy is perceived as the acceptance, analysis, composition, evaluation, and reformation of the various contents or knowledge from the media related to audio-visual media (Ozel, 2025; Potter, 2013). It encompasses a variety of cognitive, technical, and social skills, knowledge, and confidence that enable individuals to make informed choices about content and information in their daily lives through interaction, contributions, and participation in media environments. Media literacy involves distinguishing information from propaganda, deconstructing media communication, and mindfully interacting with social media (Area & Pessoa, 2012). In the digital age, media literacy is essential for adult learners since it helps them to analyze and understand the media environment (Svyrydenko & Terepyshchyi, 2020). However, research reveals that it has not been properly implemented among the current generation, despite their proficiency with digital devices (Askolani & Al'Munawar, 2020).

The philosophy of media literacy is closely linked to enhanced quality of life, citizenship rights, social integration, and acceptance within society (Oxstrand, 2009). However, while its definition has been subjected to various debates by scholars (Livingstone et al., 2012; Palsa & Ruokamo, 2015), most studies appear to focus on children and adolescents (O'Rourke & Miller, 2022; Rich & Bar-On, 2001), health (Ivi Ngwu et al., 2020; Olumide et al., 2022); cognitive development of teenagers (Azeez & Abdulrazaq, 2016), civic engagement of youths, resilience to fake news by older adults (Moore & Hancock, 2022), and critical media health literacy skills (Squires et al., 2023). These studies collectively suggest that media literacy is a crucial tool for individuals,

enhancing their understanding of media and promoting social protection and active participation in society. In addition, most of the studies were conducted in developed countries where the efficacy of media literacy is well established through empirical evidence; literature has yet to establish the place of media literacy in the social protection of learners in adult education and informal settings. Further investigation is essential to comprehensively understand the potential effects of media literacy on the social protection of adult learners (Tisdell, 2008). The present study enhances the existing body of literature regarding media literacy across various educational contexts, with a particular focus on developing countries, such as Nigeria.

The concept of media literacy has undergone significant evolution over the past decade. It now includes not only the previously established skills but also a comprehensive understanding of the role media plays in society, individual self-expression, and the democratic process (Mihailidis & Thevenin, 2013; et al., 2023; Wuyckens et al., 2022). It could be deduced that media literacy, though subjected to various debates ranging from increasing skills, building knowledge, and activity to political, social and cultural practice or composition of developing skills and building knowledge, could be seen as a dimensional concept purported at improving the cognitive, attitudinal, emotional, psychological behavior of individual in a technologically changing society.

The concept of literacy includes various forms and has evolved beyond the traditional idea of merely acquiring reading, writing, and arithmetic skills. Today, basic literacy encompasses the ability to identify, understand, interpret, create, and communicate in an increasingly digital, information-rich, and constantly changing world. The acquisition of these skills presupposes that literacy skills are indispensable for the 21st century. For instance, a review of some contributions of basic literacy shows that most studies on its acquisition focused on economic empowerment and health development of learners, among (Olori & Obama, 2022; Singh, 2017). Scholars also affirm that the relationship between basic literacy and the social protection of adult learners is complex and multifaceted. For instance, a study by Crowther et al., (2010) highlights the positive impact of literacy learning on self-confidence, social capital, and the ability to achieve personal goals, while Miller et al., (2010) underscore the public health and workplace challenges posed by low literacy levels. These findings suggest that basic literacy is a crucial factor in the social protection of adult learners, enabling them to build confidence, social connections, and employability. Recent research, thus, shows that the acquisition of basic literacy skills can significantly improve abilities (Sulistiyarini & Sabirin, 2020). Interestingly, the acquisition of these skills is premised on the suitability of learning styles by the learners (Neroni et al., 2019).

Learning styles comprise cognitive, affective, and psychological elements that demonstrate how an individual interacts with and responds to their learning environment. They constitute approaches or strategies that learners apply to effectively and efficiently comprehend a given task or complete other tasks. This suggests that using suitable learning styles can significantly impact learners' comprehension levels. Research indicates that differences in learning styles between instructors and their students can influence academic performance (Esa et al., 2009). Therefore, it is essential to adopt appropriate learning styles in media literacy. This study aims to focus on individualized and cooperative learning styles.

Individualized learners, referred to as lone learners, possess the autonomy to determine their own schedules, select their areas of study, choose their learning methods, and decide their learning environments. This independence is facilitated by the extensive availability of information and data at their disposal (Khat, 2017). This style suits adult learners who see themselves as independent and self-directed, having control over their learning. A key aspect of individualized learning is its direct impact on adult students' academic performance (Khat, 2017). Understanding this style as a preference for self-directed learning, Montuoro & Lewis (2014) submit that learners' ability to define, plan, and assess their learning, drawing on existing knowledge and experiences, is reiterated. This style further underscores the importance of tailoring learning experiences to learners' individual needs since it promotes their cognitive development.

Alongside fostering learners' cognitive development, adopting a more holistic learning style, specifically a cooperative learning approach in this study, offers an alternative method for encouraging social interaction among students (Gömleksiz, 2007; Ning, 2011). This style involves using multiple groups that collaborate to enhance both their learning and that of their peers. Research shows that the style, when effectively implemented, has a positive impact on the social protection of adult learners (Zientek, 2008). Research shows that cooperative learning is the best approach for students with diverse abilities and backgrounds (Nelson et al., 1993; Yu, 1995). This method is associated with improved academic achievement, better social behavior, and effective development. Additionally, studies have indicated that cooperative learning fosters positive attitudes among students (Aksu Atac & Er, 2018; Ning & Hornby, 2010) and encourages them to engage in positive behaviors while reducing negative behaviors. This invariably accounts for its choice in the social protection of learners. Cooperative learning focuses on collaboratively acquiring knowledge and skills at an individual level. This process involves students working together, sharing information, asking questions, and engaging in stimulating methods. It emphasizes that all group members are responsible for their own learning outcomes, as well as those of their peers (Volkova et al., 2020), and building self-confidence through the interdependent learning method to decrease the stress of learning new skills.

Admittedly, a body of literature exists on the positive effect of learning styles. However, there appears to be a knowledge gap on how individualized and cooperative learning styles as moderating variables in the present study could facilitate the realization of social protection of learners, taking into cognizance the experience of COVID-19 in an informal setting.

Social protection comprises a range of policies and programs designed to prevent or shield individuals from poverty, vulnerability, and social exclusion throughout their lives, particularly for those in at-risk groups. The primary objective of social protection is to diminish the susceptibility of low-income households regarding consumption and access to essential services. In the context of Nigeria, social protection is vital for mitigating poverty and safeguarding vulnerable populations against shocks arising from social insecurity, as well as vulnerabilities associated with disabilities, accidents, and disasters. This framework provides insight into the circumstances faced by adult learners during the COVID-19 pandemic. Accordingly, this study seeks to analyze the impact of media literacy on the social protection of

individuals enrolled in adult and vocational education policies situated in Rivers State, Nigeria.

## Research Methods

The study employed a quasi-experimental research design that included a non-equivalent control group. This design was selected for its effectiveness in systematically manipulating the assignment of participants to the treatment condition. In this study, two groups were formed: the experimental group, which was administered the treatment, and the control group, which received no treatment. The designation "non-equivalent" is applied because the assignment of participants to these groups was not conducted randomly. This design is identified as...

$$\begin{aligned}\text{Experimental Group} &= O_1 \times O_2 \\ \text{Control Group} &= O_1 \dots O_2 \\ \text{where } O_1 &= \text{Pre-tests} \\ x &= \text{Treatment for group 1} \\ O_2 &= \text{Post tests.}\end{aligned}$$

The study was conducted in public adult and vocational education literacy centers located in Rivers State, Nigeria, with a total population of 1,870 learners. A sample of 180 learners was strategically selected from two centers through a random sampling technique. This methodology ensures the representation of the sample without bias, thus enhancing the generalizability of the findings. Within this sample, 90 learners were allocated to either a control group or an experimental group. The control group underwent basic literacy training that utilize individualized learning styles alongside traditional teaching methods. In contrast, the experimental group, referred to as the treatment, was exposed to media literacy, with both cooperative learning styles and personalized instruction methods. The assumption behind using these methods is that, unlike the traditional approach, which is based on the idea that adult learners can learn at their own pace with access to information on social protection for personal growth, the personalized approach emphasizes the integration of blended learning and the promotion of teamwork.

The instrument for data collection was the researchers' structured Learners Social Protection Test (LeSPT). The LeSPT consisted of 10 multiple-choice questions, each offering options A, B, C, and D, with only one correct answer per question. This tool was developed based on the five components of social protection outlined by the Social Protection Inter-Agency Cooperation (SPIAC) in 2019. These components include labor markets, social insurance, social assistance or safety nets, micro and area-based approaches, and child protection. From each component emerged two items, resulting in a total of 10.

Three experts from the University of Nigeria Nsukka evaluated the LeSPT for face and content validity. Two of the experts were from the Department of Continuing Education and Development Studies, while the third was from the Measurement and Evaluation Unit of Science Education. The Kuder- Richardson (K-R20) was used to obtain the reliability coefficient value of 0.87. The choice in the use of Kuder-Richardson (K-R20) is premised on the fact that it is more appropriate for test items with varying levels of difficulty.

### Experimental Procedure

Before the commencement of the training, the researchers sought written and oral permissions from the State Agency for Adult and Mass Education (SAME) coordinator during a preliminary visit. The essence of the visit was to foster cooperation with the facilitators who served as research assistants and the integration of the research program into the centers' weekly schedule. The duration of the training was 12 weeks (July 01, 2023, to September 30, 2023) in 40 hours (four hours per week). This timeframe is instrumental in equipping learners with essential knowledge regarding attaining social protection. In the first week, the researchers visited the centers to familiarize themselves with the facilitators while acquainting them with the skills involved in media literacy for learners in the treatment group and those in the control group. During the second week, the researchers administered a pre-test to the learners with the assistance of research assistants. This was done to assess the learners' general knowledge of social protection. Following the pre-test, the treatment was implemented for the experimental group from week three to week 11. The primary distinction between the two groups was that the experimental group received individualized instruction. In contrast, the control group was instructed using conventional pedagogical methods. In the 12th week, a post-test was administered to the two groups. To further minimize the treatment bias, the experimental and control groups were unaware of the research process.

The analysis of data was done using mean, standard deviation as descriptive statistical tools, while the analysis of covariance was the inferential statistical tool.

### Results and Discussion

The results of this study are presented systematically in a series of tables, each carefully structured to answer the specific research questions and hypotheses outlined in the methodology. By organizing the data in this way, the findings become more accessible, allowing for clear and logical comparisons between the expected results (hypotheses) and the observed data. The tables are categorized according to each research question, ensuring that relevant results can be easily found and their alignment with the theoretical framework of the study assessed.

**Table 1.** Pre-test and post-test mean scores for social protection among participants taught using media and basic literacy

Groups	N	Pre-test		Post-test		Mean Difference
		$\bar{x}$	SD	$\bar{x}$	SD	
Experimental (Media)	90	25.89	3.88	34.00	5.14	8.11
Control (Basic)	90	23.11	3.09	28.63	3.28	5.52

*Source : processed by author, 2025*

Table 1 presents the findings indicating that learners who received instruction in media literacy achieved mean scores of 25.89 on the pre-test and 34.00 on the post-test in the domain of social protection, resulting in a mean difference of 8.11. In contrast, learners who participated in basic literacy instruction attained mean scores of 23.11 on the pre-test and 28.63 on the post-test, leading to a mean difference of 5.52. These results indicate that adult learners who received training in media literacy demonstrated superior performance in social protection assessments compared to their counterparts who underwent basic literacy instruction.

Ho<sub>1</sub>) There is a significant difference in the mean social protection scores between learners who were trained in media literacy and those who received training in basic literacy.

**Table 2.** Pre-test and post-test social protection for participants in media and basic literacy using a t-test

Group	N	Mean ( $\bar{x}$ )	SD	Df	t <sub>value</sub>	p <sub>value</sub>	Decision
Media (pre-test)	90	25.89	3.88				
Basic (pre-test)	90	23.11	3.09	178	-5.32	.00	S
Media (post-test)	90	34.00	5.14				
Basic (post-test)	90	28.63	3.28	178	-8.35	.00	S

s – significant, significant at  $p < 0.05$

Source : processed by author, 2025

Table 2 illustrates that at the pre-test stage, there existed a significant difference in social protection scores between the experimental group, which underwent media literacy training, and the control group, which received basic literacy training ( $t_{\text{cal}} = -5.32$ ;  $p\text{-value} = .00$ ). The results from the post-test indicated that the two training programs resulted in significantly different outcomes, which necessitated the rejection of the null hypothesis. This observation underscores a substantial difference in the mean social protection scores between learners who received instruction in both training programs.

Summarily, the study shows that learners with media literacy scored higher in social protection compared to those with only basic literacy. This was also established in the existence of a significant difference in the hypothesis. This underscores the substantial advantages associated with the acquisition of media literacy skills, as evidenced by numerous studies (Folarin, 2020; Ivi Ngwu et al., 2020; Moore & Hancock, 2022; O'Rourke & Miller, 2022; Olumide et al., 2022; Squires et al., 2023). These studies suggest that irrespective of location or categories of people, the exposure of individuals to media literacy skills is believed to impact the learner. This further agrees with the assertion that it is directed to the continuous improvement of every learner (Potter, 2003). The study emphasizes the importance of integrating media literacy skills into the curriculum. This integration will provide learners with the critical thinking competencies required to effectively address the challenges associated with potential future pandemics.

**Table3.** Mean scores of participants on cooperative and individualised learning styles pre and post test

Groups	N	Pre-test		Post-test		Mean Difference
		$\bar{x}$	SD	$\bar{x}$	SD	
Experimental (Media)	90	24.78	4.08	33.29	5.32	8.51
Control (Basic)	90	24.22	3.14	29.34	3.94	5.12

Source : processed by author, 2025

Table 3 provides an overview of the results, indicating that learners who utilized a cooperative learning style demonstrated mean scores of 24.78 in the pre-test and 33.29 in the post-test, leading to a mean difference of 8.51. In contrast, those who adopted personalized learning strategies achieved mean social protection scores of 24.22 on the pre-test and 29.34 on the post-test, resulting in a mean difference of 5.12. These findings imply that learners employing a cooperative learning approach attained

significantly higher mean scores in social protection compared to their counterparts using an individualized learning method.

Ho<sub>2</sub>) Learners trained with a cooperative learning approach have significantly different mean social protection scores compared to those trained with an individualised learning style.

**Table 4.** Pre-test and post-test social protection mean scores of participants using cooperative and individualised learning styles by t-test

Group	N	Mean ( $\bar{x}$ )	SD	Df	t <sub>value</sub>	p <sub>value</sub>	Decision
Media (pre-test)	90	24.78	4.08				
Basic (pre-test)	90	24.22	3.14	178	-.99	.32	NS
Media (post-test)	90	33.29	5.32				
Basic (post-test)	90	29.34	3.94	178	5.32	.00	S

ns – not significant, s – significant, significant at  $p < 0.05$

Source : processed by author, 2025

Table 4 presents the findings from the pre-test stage, indicating no significant difference between cooperative and individualized learning styles ( $t\text{-cal} = -0.99$ ,  $p\text{-value} = 0.32$ ). This indicates that both learning styles exhibit similar characteristics of social protection. However, the post-test stage showed a significant difference between the two learning styles ( $t\text{-cal} = 5.32$ ,  $p\text{-value} = 0.00$ ). This implies that the learning styles differ significantly in their effectiveness in achieving social protection.

In conclusion, the study indicates that the implementation of a cooperative learning style as a moderating variable significantly enhances the mean scores related to social protection when compared to individualized learning styles. This finding underscores the value of collaborative educational approaches in fostering improved social outcomes. The study of Squires et al., (2023) further supports the promotion of team spirit in the quest for knowledge. However, while the pre-test establishes no significant difference between the two learning styles, a diverse opinion was found in the post-test, owing to the rejection of the null hypothesis. The result invariably suggests that learners' attainment of social protection could take different learning approaches, contradicting the findings of Nelson et al., (1993) that a cooperative learning style was the best option for all students. These studies failed to consider the learning styles adopted, as adults are self-directed learners who may adopt a learning style believed to be appropriate for acquiring knowledge capable of promoting their growth. Even though scholars affirmed that the adoption of a cooperative learning style is expected to positively affect the learners (Aksu Atac & Er, 2018; Ning & Hornby, 2010). This study suggests that, as much as learning styles constitute moderating variables towards social protection, care should be taken to allow learners to choose their learning style.

**Table 5.** Interaction effect between the programs and learning styles on the social protection of learners

Treatment	Learning styles	N	Pre-test		Post-test		Mean Gain	Mean difference
			$\bar{x}$	SD	$\bar{x}$	SD		
Experimental	Cooperative	69	25.45	4.10	34.03	5.76	8.58	
	Individualised	21	27.33	2.60	33.91	2.21	6.58	2.00
Control	Cooperative	21	22.57	3.17	30.86	2.29	8.29	
	Individualised	69	23.28	3.06	27.96	3.24	4.68	3.61

Source : processed by author, 2025



Table 5 presents the performance scores of media literacy learners who participated in a cooperative learning approach. In the pre-test, these learners achieved a mean score of 25.45, which increased to 34.03 in the post-test, resulting in an adjusted mean gain of 8.58. Conversely, learners who engaged in individualised learning styles recorded a mean score of 27.33 on the pre-test and 33.91 on the post-test, leading to an adjusted mean gain of 6.58. In the context of basic literacy, learners who engaged in a cooperative learning approach attained an average pre-test score of 22.57, which improved to 30.86 on the post-test, yielding an adjusted mean score of 8.29. In contrast, learners who adopted an individualized learning style recorded an average pre-test score of 23.28, which subsequently increased to 27.96 in the post-test, resulting in an adjusted mean of 4.68. The analysis reveals that the mean difference for the experimental group focused on media literacy was 2.00, whereas the control group, which emphasized basic literacy, demonstrated a mean difference of 3.61. These findings indicate that basic literacy exerts a more pronounced positive impact on the social protection of learners when compared to media literacy.

Ho<sub>3</sub>) The mean social protection scores of learners vary significantly based on the interaction between the training programmes and the learning styles used.

**Table 6.** ANCOVA on the interaction effect of training programs and learning styles on social protection

Source	Type III sum of squares	Df	Mean scores	F	Sig	Decision
Corrected model	412.350 <sup>a</sup>	3	137.450	11.418	.000	
Intercept	78308.456	1	78308.456	6505.22	.000	
Programme	387.250	1	387.250	32.170	.000	
Styles	53.916	1	53.916	4.479	.036	
Programme* styles	11.211	1	11.211	.931	.336	NS
Error	2118.650	176	12.038			
Total	110576.000	180				
Corrected Total	2531.000	179				

*Source : processed by author, 2025*

Table 6 presents an f-ratio of 0.931, accompanied by a significance value of 0.336. Given that this value exceeds the 0.05 significance level, we accept the null hypothesis. The findings indicate that there is no statistically significant difference in the mean scores of learners regarding social protection, particularly about the interaction effect between training programs and learning styles.

In conclusion, the study highlights a positive interaction effect between training programs and learning styles on the social protection of learners. Notably, a more pronounced impact was observed with basic literacy. Recognizing the importance of basic literacy contributes to the improvement of skills and helps explain the limited understanding many individuals have about the effectiveness of media literacy, particularly regarding technology use (Folarin, 2020; Livingstone et al., 2012; Palsa & Ruokamo, 2015) in developing countries like Nigeria. The inadequate understanding of media literacy prevalent in Nigeria is believed to be linked to the limited application of technological skills in the country. Scholars have noted that digital skills in Nigeria are still in their early stages. While empirical evidence acknowledges the proficiency of media literacy across various platforms (Ozel, 2025; et al., 2023), its application among the younger generation is still emerging (Askolani & Al'Munawar, 2020), which is reflected in the higher positive mean score in recent studies. Hence, this research

promotes greater awareness of media literacy and its advantages among learners, along with providing necessary resources to enhance media literacy and contribute to human and societal growth.

## Conclusion

The study concludes that media literacy positively affects the social protection of learners in Nigeria. The application of cooperative learning styles as a moderating variable represents an effective strategy for promoting social protection among learners in adult and vocational education, particularly in the context of pandemics. Additionally, the substantial positive influence of basic literacy on the dynamics between training programs and learning styles underscores the necessity for policymakers to integrate media literacy skills into the educational curriculum. Given the findings, some recommendations were made more learning styles should be introduced as moderating variables in ascertaining the efficacy of the independent variable on the social protection of learners in both formal and informal settings. Awareness of the relevance of media literacy should be intensified in the informal system of education owing to the rapid development of technology. Adult and vocational education centres should have ICT facilities to facilitate learners' acquisition of these media literacy skills.

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