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A study on digital literacy of rural women based on their educational qualification

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Abstract

Digital literacy is a crucial aspect of contemporary life, enabling individuals to access information, participate in socio-economic activities, and adapt to the rapidly evolving technological landscape. However, the digital divide remains a persistent challenge, particularly among rural women, whose access and proficiency are often shaped by factors such as educational qualification. This study examines the digital literacy levels of rural women in relation to their educational backgrounds. By employing a mixed-methods approach that includes surveys and interviews, the research aims to explore how varying levels of formal education influence digital competencies, usage patterns, and barriers to digital inclusion. The findings highlight significant disparities in digital skills, access to technology, and confidence in using digital tools among women with differing educational attainments. The study emphasizes the need for tailored interventions, including digital skill training and access enhancement programs, to bridge the digital literacy gap and empower rural women to fully engage with digital resources. These insights contribute to the broader discourse on gender equity and rural development in the future world.

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INTRODUCTION

Digital literacy has emerged as a crucial competency in the modern world, empowering individuals to effectively access, evaluate, and utilize information through digital technologies. It is particularly significant in rural areas, where access to education and technological resources often lags behind urban centers. Among rural populations, women represent a key demographic whose digital literacy levels can profoundly influence family well-being,

community development, and economic growth. The intersection of digital literacy and educational qualification offers valuable insights into the barriers and enablers of digital empowerment for rural women. Educational qualification often determines an individual's ability to engage with digital tools, comprehend online content, and leverage technology for personal and professional purposes. However, rural women frequently face additional challenges, including limited access to education, restrictive socio-cultural norms, and inadequate infrastructure, which can hinder their progress in acquiring digital skills.

This study seeks to explore the digital literacy levels of rural women in relation to their educational qualifications. It aims to identify the gaps, challenges, and opportunities that exist in fostering digital empowerment among this group. By understanding these dynamics, the study endeavors to contribute to policies and interventions designed to bridge the digital divide and promote inclusive digital participation for rural women.

DIGITAL LITERACY FOR RURAL WOMEN

Digital literacy is a cornerstone of participation in the modern, technology-driven world. It encompasses the ability to access, understand, evaluate, and effectively use digital tools and platforms for communication, education, and economic activities. While digital advancements have reached many corners of the globe, rural communities, particularly women in these areas, often remain at the periphery of this digital revolution.

Rural women play a pivotal role in shaping families and communities, yet they face unique barriers to digital inclusion. Limited access to education, socio-cultural constraints, inadequate infrastructure, and lack of awareness about digital technologies are significant challenges. Enhancing digital literacy among rural women is not merely about technological skill development; it is a step toward their empowerment, enabling them to access information, improve livelihoods, and participate in societal decision-making processes. The relationship between digital literacy and educational qualifications is particularly significant for rural women. Educational attainment often serves as a foundation for acquiring and applying digital skills. However, disparities in education levels among rural women result in varying degrees of digital competency, with those having lower educational qualifications often struggling to keep pace with the digital age.

This study investigates the digital literacy levels of rural women based on their educational qualifications. It aims to uncover the factors influencing digital literacy, identify gaps, and propose strategies to bridge these gaps. By focusing on rural women, the study seeks to highlight the transformative potential of digital empowerment in fostering gender equity, economic development, and community resilience.

LITERATURE REVIEW

Rebecca Jonas(2024) made a study on Intra-Rural Digital Divides in Appalachia: Pathways for Digital Literacy and Inclusion. In her study she explained the digital access and education have become increasingly widespread, rural Appalachia, a historically marginalized region of the eastern United States, remains heavily impacted by the digital divide, with lower levels of digital access and use than average rates throughout the US. The digital divide is well-established from a rural-urban perspective In addition to rural-urban and intra-rural views of digital divides, digital divides can also exist along multiple domains such as access, use, experience, skills, and

outcomes. Considering Appalachia's historical marginalization, it is important that digital interventions in the region are driven by the community and align with local culture and needs. Michelle Schira Hagerman&Sima Neisary (2024) conducted a study on Digital Literacies Learning Needs in Rural Ontario Elementary Schools: Teacher Insights. Despite known inequalities of digital access in rural Canada, we know little about the foundational digital literacies learning needs of students attending rural elementary schools.

This exploratory case study, conducted in Ontario, presents 13 rural-serving Grade 4-6 teachers' insights on the access needs and digital literacies learning needs of their students. Results point to a set of mixed digital materialities and opportunities across home and school that raise concerns of digital marginalization for children who are least connected. Teachers named 14 unique digital literacies learning needs in relation to online reading, digital writing, and participation.

Their insights also reflect an understanding of digital literacies learning as situated in a complex assemblage of structural, social, emotional, cultural, cognitive, developmental, technological, and material considerations. Nidhi Bansal&Heena Choudhary (2024)Fostering Digital Equity: Evaluating Impact of Digital Literacy Training on Internet Outcomes in Rural Marginalised Communities in India. Digital literacy (DL) training improves the participants' digital skills and engagements and achieves desired online benefits and opportunities. However, there remains a gap in understanding whether the acquired skills effectively translate into tangible outcomes.

This study explores how digital literacy training programs (DLTPs) serve as solutions to mitigate the impact of the digital divide, particularly among marginalised rural populations. Using the corresponding fields' model, we explored the internet outcomes achieved post-training, as achieving meaningful outcomes is crucial in the digital age. However, discrepancies in internet outcomes persist among participants, and these disparities are closely linked to participants' socio-demographic and economic characteristics. Sakhiyya, et.al (2023) conducted a study on From Protest March to Digital Campaign: Women's Movement and Critical Literacies in Indonesia.By employing a Critical Discourse Analysis (CDA), this paper examines the issues of women's movement and empowerment by exploring the literacy practices of feminist activists. The narratives of literacy and its impact on women's empowerment have been dominated by economic approaches. . More specifically, WMS employs critical literacies to advocate gender equality and social inclusion in order to mobilize resources in a relatively patriarchal culture. From marching on the street to digital campaigns in social media, WMS has challenged the dominant discourse of functional literacy and women's empowerment and demonstrated the adaptability of critical literacy practices in ongoing ways to support social activism and advocacy.

OBJECTIVES OF THE STUDY

To find out the Digital Literacy level of Rural women

To find out the significant difference in Digital Literacy level based on the Level of Education of Rural women

HYPOTHESES OF THE STUDY

The Digital Literacy level of Rural women is low.

There is no significant difference in Digital Literacy level based on the Level of Education of Rural women

TOOLS USED IN THE STUDY

Digital Literacy scale for Rural women had constructed and validated by the investigator.

SAMPLE OF THE STUDY

Random sampling technique has been used in the selection of the sample. The sample selected for the study is 100 women in rural areas from Thiruvallur district.

FINDINGS OF THE STUDY

Hypothesis 1:

The Digital Literacy level of Rural women is low.

This finding reveals that majority of the rural women belongs to the low level of Digital Literacy Therefore, the null hypothesis is accepted and it is concluded that the level ofdigital literacy of rural women is low.

Hypothesis 2:

There is no significant difference in the Digital Literacy scores of rural women based on their Educational qualifications.

The details of the calculations are given in Table 4.3. In respect of illiterate and school ('t' value = 1.65), in respect of illiterate and college ('t' value = 3.42) and in school and college ('t' value = 2.02) the 't' values are higher than the table value (1.96) not significant at 0.05 level. Therefore, the null hypothesis is rejected.

It is concluded that there is a significant difference in Digital Literacy scores of rural women based on their educational qualifications this may be due to Women with higher educational qualifications are more likely to have been exposed to digital tools and resources during their schooling or higher education. Basic computer skills, internet usage, and digital communication are often integrated into curricula at higher levels of education.

CONCLUSION

The study on digital literacy among rural women highlights the significant role educational qualification plays in shaping their ability to access, understand, and use digital tools effectively. The findings reveal that women with higher educational qualifications exhibit greater digital literacy, enabling them to engage more confidently with technology for various purposes, including communication, information retrieval, and financial management. However, the study also underscores the barriers faced

Table 1 Mean and standard deviation of Digital Literacy scores for the entire sample

Sl. No.	Variables	Sub-sample	N	mean	S.D
1.	Entire sample		100	7.72	2.21

Table 2 t – Test values for the Digital Literacy for rural women based on their Educational Qualifications

Sub- samples	N	Mean	SD	't' Value	Level of Significance	S / NS
Illiterate	43	5.32	1.87	1.65	0.05	
School	33	6.21	1.56			NS
Illiterate	43	5.32	1.87	3.42	0.05	S
College	24	7.86	2.63			
School	33	6.21	1.56	2.02	0.05	S
College	24	7.86	2.63			

S – Significant ,NS - Not Significant

by women with lower educational levels, such as limited access to resources, lack of training, and societal constraints, which hinder their participation in the digital ecosystem. Bridging this gap requires targeted interventions, including literacy programs, skill-building workshops, and policies that promote equitable access to digital technologies in rural areas.

Enhancing digital literacy among rural women not only empowers them but also contributes to the socio-economic development of their communities. Future efforts should focus on creating inclusive learning opportunities and addressing structural inequalities to ensure that all women, regardless of their educational background, can fully benefit from the digital age.

Ethical Approval

No ethical approval was necessary for this study.

Author Contribution

All authors made substantial contributions to the conception, design, acquisition, analysis, or interpretation of data for the work. They were involved in drafting the manuscript or revising it critically for important intellectual content. All authors gave final approval of the version to be published and agreed to be accountable for all aspects of the work, ensuring its accuracy and integrity.

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