Technological Literacy Gains in Digital Literacy Programmes for Senior Citizens in Lagos: A Methodological Framework

Taiwo Oyebolon[1,2]**, Olumide Adekunbi**[1,3]**, Chinedu Ezeugo**[4]**, Obafemi Oludamola**[1,5]

[1] Nigerian Institute of Advanced Legal Studies (NIALS)

[2] Department of Cybersecurity, University of Abuja

[3] Department of Artificial Intelligence, American University of Nigeria (AUN)

[4] University of Jos

[5] American University of Nigeria (AUN)

Author notes

Taiwo Oyebolon is affiliated with Nigerian Institute of Advanced Legal Studies (NIALS) and focuses on Computer Science research in Africa.

Olumide Adekunbi is affiliated with Department of Artificial Intelligence, American University of Nigeria (AUN) and focuses on Computer Science research in Africa.

Chinedu Ezeugo is affiliated with University of Jos and focuses on Computer Science research in Africa.

Obafemi Oludamola is affiliated with Nigerian Institute of Advanced Legal Studies (NIALS) and focuses on Computer Science research in Africa.

Abstract

In Nigeria, digital literacy programmes for senior citizens in Lagos aim to bridge the technological divide, enhancing their access to information and communication technologies (ICTs). However, limited empirical research exists on the effectiveness of these programmes. We employed a mixed-methods approach, combining quantitative pre- and post-programme assessments with qualitative interviews of participants and facilitators. Data were analysed using descriptive statistics to measure technological gains and thematic analysis to uncover themes related to community involvement. Participants demonstrated significant improvements in digital literacy skills (mean improvement score: 45%), indicating substantial learning outcomes from the programmes. Community engagement levels varied, with a notable theme of informal support networks fostering continued participation. The mixed-methods framework successfully captured both quantitative and qualitative dimensions of programme impact, providing insights into effective strategies for senior citizens' digital literacy development in Lagos. Further research should focus on replicating these findings across different age groups and regions to validate the approach's generalizability. Policy recommendations include integrating community support structures into future programmes. Model estimation used $\hat{\theta} = argmin\{\theta\} sumiell(yi, f\theta(\xi)) + \lambda lVert\theta rVert 2^2$, with performance evaluated using out-of-sample error.

Keywords: *Geographic, Community Engagement, Technological Literacy, Digital Divide, Quantitative Research, Qualitative Analysis, Survey Design*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ REQUEST FULL PAPER

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa

Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge