



Digital Literacy Programmes in Nairobi Slums: Adoption Rates and Educational Outcomes Over Three Years

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Abstract

Digital literacy programmes have become increasingly important in addressing educational disparities among youth living in Nairobi slums. There is a growing need for evidence-based evaluations of these programmes to understand their effectiveness and impact over time. The review utilised comprehensive searches across academic databases, including PubMed, Web of Science, and Google Scholar. Inclusion criteria were defined based on study design, participant age range (15-24 years), setting (Nairobi slums), and timeframe (three-year period). Studies were assessed for methodological quality using the Cochrane Risk of Bias tool. Analysis revealed that digital literacy programmes in Nairobi slums had an adoption rate of approximately 30% among youth, with significant variations across different socio-economic groups. Educational outcomes showed a moderate improvement in basic computer skills and online safety awareness over three years. The review highlights the importance of tailored interventions for maximising programme uptake and educational benefits within Nairobi slums. Future research should explore long-term impacts and scalability of digital literacy programmes. Policy makers are encouraged to support evidence-based digital literacy initiatives in partnership with community leaders, ensuring inclusivity and addressing socio-economic disparities effectively. Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \theta \} \operatorname{sumiell} (y_i, f\theta(\xi)) + \lambda \operatorname{Vert}\theta \operatorname{rVert}^2$, with performance evaluated using out-of-sample error.

Keywords: Sub-Saharan, Nairobi, Youth, Digital Divide, Participatory Research, Community Engagement, Accessibility Studies

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