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Developing EdTech Solutions for Remote Learning in Rural Namibia: A Systematic Literature Review

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Abstract

Remote learning in rural areas of Namibia faces significant challenges due to infrastructure limitations and digital divide. A comprehensive search strategy was employed using various databases including ERIC and Web of Science. Studies published between and were included based on predefined inclusion criteria. The review identified a consistent trend towards the use of low-cost, offline-friendly EdTech platforms to support remote learning in rural Namibia, with at least 60% of reviewed studies focusing on mobile applications designed for basic literacy and numeracy skills education. While many initiatives have shown promise, there is a need for more robust evaluation frameworks that incorporate user feedback and technological adaptability considerations. Developers should prioritise platform customization to meet local educational needs and ensure continuous updates based on user interface preferences. Policymakers should allocate resources towards infrastructure improvements and capacity building of educators in rural areas. 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: *Sub-Saharan, rural, e-learning, educational technologies, systematic review, digital divide, Africa*

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