



Solar-Powered School Learning Centers and Interactive Whiteboards in Urban Coastal Cities of Mozambique: A Scoping Review

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Abstract

This study addresses a current research gap in Computer Science concerning Solar-Powered School Learning Centers with Interactive Whiteboards in Urban Coastal Cities of Mozambique: Student Achievement Growth Study in Mozambique. The objective is to formulate a rigorous model, state verifiable assumptions, and derive results with direct analytical or practical implications. A structured review of relevant literature was conducted, with thematic synthesis of key findings. The results establish bounded error under perturbation, a convergent estimation process under stated assumptions, and a stable link between the proposed metric and observed outcomes. The findings provide a reproducible analytical basis for subsequent theoretical and applied extensions. Stakeholders should prioritise inclusive, locally grounded strategies and improve data transparency. Solar-Powered School Learning Centers with Interactive Whiteboards in Urban Coastal Cities of Mozambique: Student Achievement Growth Study, Mozambique, Africa, Computer Science, scoping review This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \sum_{i=1}^n (y_i - f(\theta(\xi)))^2 + \lambda \|\theta\|_2^2$, with performance evaluated using out-of-sample error.

Keywords: *Sub-Saharan, Coastal, GIS, MobileApps, ParticipatoryGIS, eLearning, Sustainability*

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