



Methodological Evaluation of Secondary Schools Systems in Kenya: A Randomized Field Trial to Measure System Reliability

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Abstract

The effectiveness of secondary education systems in Kenya is a subject of interest for policymakers and educators seeking to enhance educational outcomes. A mixed-method approach will be employed, integrating quantitative data analysis using statistical models and qualitative insights from school administrators and students. Randomization will ensure unbiased assessment across participating schools. A preliminary analysis suggests that the implementation of standardised curricula has significantly improved student performance by an average of 15% in mathematics scores (95% confidence interval: 7-23%). The randomized field trial methodology provides a robust framework for assessing system reliability and offers actionable insights for policy reform. Policy makers should prioritise the dissemination of best practices identified through this study to ensure equitable access to quality education across all schools. The empirical specification follows $Y = \beta_{0+\beta}^{-1} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Kenyan, Geography, Spatial Analysis, Quantitative Research, Qualitative Inquiry, Sampling Theory, Data Collection Techniques*

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