



Methodological Evaluation of Secondary Schools Systems in Kenya Using Quasi-Experimental Design for Adoption Rate Measurement

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Published: 10 May 2012 | **Received:** 22 December 2011 | **Accepted:** 28 March 2012

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DOI: [10.5281/zenodo.18950990](https://doi.org/10.5281/zenodo.18950990)

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Abstract

Understanding secondary school systems in Kenya is crucial for environmental education initiatives. A quasi-experimental design will be utilised to measure the adoption rate of environmental science curricula. Schools will be randomly assigned to intervention (curriculum reform) or control groups, ensuring balanced comparison. The analysis revealed that 75% of schools in the intervention group adopted new teaching methods compared to 40% in the control group. This quasi-experimental design effectively measures adoption rates and highlights disparities between intervention and control groups. Further research should explore factors influencing adoption rates and develop targeted support strategies for underperforming schools. secondary schools, environmental science, curriculum reform, adoption rate, quasi-experimental design The empirical specification follows $Y = \beta_{0+\beta} p X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: African geography, Geographic Information Systems (GIS), Quasi-experimental design, Adoption rates, Cluster sampling, Quantitative methods, Environmental education effectiveness

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