



# Methodological Evaluation of Secondary Schools Systems in Tanzania Using Difference-in-Differences for Clinical Outcomes Measurement

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### Author notes

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### Abstract

This study examines the methodological challenges in evaluating secondary school systems in Tanzania. A difference-in-differences approach will be used to analyse the impact of policy interventions on student performance. This method compares changes over time between treatment and control groups within different subgroups or regions. The DiD model revealed a significant improvement in test scores for students exposed to the intervention, with an estimated effect size of 15%. The DiD model demonstrated its effectiveness in measuring clinical outcomes in educational settings, providing robust evidence on policy impacts. Future studies should consider extending this methodology to other regions and incorporating additional control variables for more comprehensive analysis. secondary schools, Tanzania, difference-in-differences, clinical outcomes, education policy evaluation Model estimation used  $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \sum_i (y_i - f(\theta(\xi)))^2 + \lambda \|\theta\|_1 \}$ , with performance evaluated using out-of-sample error.

**Keywords:** Sub-Saharan, African, Randomized-Controlled-Design, RCT, DID, differential-differences, model, methodology, evaluation

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