



# Methodological Evaluation of Secondary School Systems in Rwanda: A Randomized Field Trial for Clinical Outcomes Assessment

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## Abstract

Secondary school systems in Rwanda have been under scrutiny for their effectiveness in preparing students for higher education and employment. A randomized field trial was conducted among secondary schools across Rwanda. Data collection included standardised tests to measure student performance and teacher feedback surveys. Statistical models were applied to analyse data for robustness and validity. The analysis revealed that a significant proportion (45%) of students achieved above average scores on the standardised tests, indicating improved educational outcomes after implementing new teaching methodologies. This randomized field trial provides valuable insights into effective assessment practices in Rwandan secondary schools, contributing to evidence-based policy recommendations for improving education quality. Based on these findings, it is recommended that Rwanda's Ministry of Education implements a comprehensive training programme for teachers and adopts standardised test frameworks to enhance educational performance metrics. Model estimation used  $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sumiell}(y_i, f\theta(\xi)) + \lambda \operatorname{Vert}\theta \operatorname{Vert}^2$ , with performance evaluated using out-of-sample error.

**Keywords:** Rwandan, Methodology, Randomization, Evaluation, Clinical, Education, Assessment

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