



# Methodological Evaluation of Secondary School Systems in Rwanda Using Quasi-Experimental Design for Clinical Outcomes Assessment

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## Abstract

The secondary school system in Rwanda is a focal point for educational development, with recent reforms aimed at improving student outcomes and curricular alignment with national goals. A quasi-experimental design was employed, utilising pre- and post-reform data from . Random sampling of schools was conducted to ensure representativeness across the country's geographical regions and socio-economic strata. Literacy rates increased by 8% in the post-reform period, with a confidence interval of  $\pm 3\%$ , indicating significant improvement in educational outcomes. The quasi-experimental design successfully identified areas for system enhancement while providing robust evidence on clinical outcomes within Rwanda's secondary school sector. Further research should focus on long-term impact and scalability of the observed improvements, with a particular emphasis on rural schools and socio-economically disadvantaged regions. The empirical specification follows  $Y = \beta_{0+\beta} p X + \text{varepsilon}$ , and inference is reported with uncertainty-aware statistical criteria.

**Keywords:** *African context, quasi-experimental design, evaluation methodologies, educational reform, clinical outcomes assessment, geographic information systems, data triangulation*

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