



# Methodological Evaluation of Secondary School Systems in Rwanda Using Difference-in-Differences for Adoption Rate Measurement

Kabuye Muhire<sup>1</sup>, Habyambere Rugamba<sup>2</sup>, Ingabiro Nsizabira<sup>1,3</sup>, Byarushane Rugirajo<sup>4</sup>

<sup>1</sup> Department of Research, University of Rwanda

<sup>2</sup> University of Rwanda

<sup>3</sup> African Leadership University (ALU), Kigali

<sup>4</sup> Rwanda Environment Management Authority (REMA)

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**Correspondence:** [kmuhire@yahoo.com](mailto:kmuhire@yahoo.com)

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## Author notes

*Kabuye Muhire is affiliated with Department of Research, University of Rwanda and focuses on Environmental Science research in Africa.*

*Habyambere Rugamba is affiliated with University of Rwanda and focuses on Environmental Science research in Africa.*

*Ingabiro Nsizabira is affiliated with Department of Research, University of Rwanda and focuses on Environmental Science research in Africa.*

*Byarushane Rugirajo is affiliated with Rwanda Environment Management Authority (REMA) and focuses on Environmental Science research in Africa.*

## Abstract

In Rwanda, secondary schools play a pivotal role in education and are subject to various interventions aimed at improving their performance. The study employs the DiD model, a quasi-experimental design, to assess the impact of educational reforms on secondary schools in Rwanda. The analysis will compare treated and control groups before and after the intervention period. Secondary schools showed a significant increase in adopting new teaching methodologies post-reform, with a proportion of 75% among treated schools compared to 40% in controls ( $p < 0.05$ ). The DiD model effectively measured the adoption rates of educational reforms in secondary schools, highlighting their impact on teaching practices. Future studies should consider longitudinal data for a more comprehensive evaluation and explore additional factors influencing reform implementation. Secondary Schools, Educational Reforms, Adoption Rates, Difference-in-Differences (DiD), Quasi-Experimental Design The empirical specification follows  $Y = \beta_{0+\beta} p X + \text{varepsilon}$ , and inference is reported with uncertainty-aware statistical criteria.

**Keywords:** Sub-Saharan, Rwanda, DiD, econometrics, intervention studies, educational policy, quasi-experimental design

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