



# Methodological Evaluation of Secondary School Systems in Tanzania: A Randomized Field Trial for Efficiency Gains

Mwakali Muthemba<sup>1,2</sup>, Kamonyi Mpira<sup>3,4</sup>

<sup>1</sup> State University of Zanzibar (SUZA)

<sup>2</sup> Department of Artificial Intelligence, Catholic University of Health and Allied Sciences (CUHAS)

<sup>3</sup> Catholic University of Health and Allied Sciences (CUHAS)

<sup>4</sup> Department of Software Engineering, State University of Zanzibar (SUZA)

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**Correspondence:** [mmuthemba@aol.com](mailto:mmuthemba@aol.com)

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### Author notes

*Mwakali Muthemba is affiliated with State University of Zanzibar (SUZA) and focuses on Computer Science research in Africa.*

*Kamonyi Mpira is affiliated with Catholic University of Health and Allied Sciences (CUHAS) and focuses on Computer Science research in Africa.*

### Abstract

This study examines the secondary school systems in Tanzania to identify inefficiencies and proposes improvements. A randomized field trial involving 100 randomly selected secondary schools was conducted. Data were collected using a standardised questionnaire and analysed for efficiency gains. The analysis indicated that the current system lacks effective teacher training programmes, contributing to lower student performance in mathematics (mean score of 58 out of 100). The identified inefficiencies suggest a need for targeted interventions such as increased investment in teacher training and curriculum development. Immediate investments should be made into improving teacher training programmes, particularly in mathematics. Curriculum review is also recommended to enhance student performance. Model estimation used  $\hat{\theta} = \text{argmin} \{ \theta \} \text{sumiell} (y_i, f\theta(\xi)) + \lambda I \text{Vert} \theta r \text{Vert} 2^2$ , with performance evaluated using out-of-sample error.

**Keywords:** Tanzania, Education Policy, Methodology, Randomized Control Trial, School Efficiency, Educational Reform, Quantitative Evaluation

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