African Public Sector Innovation (Public Admin/Business/ICT)

Methodological Assessment of Secondary School Systems in Uganda: Quasi-Experimental Designs for System Reliability Evaluation

Felix Mukasa[1,2], **Grace Nabirya**[2,3], **James Okello**[4], **Alice Nakibinge**[1]

[1] Gulu University

[2] Uganda Christian University, Mukono

[3] Department of Data Science, Uganda National Council for Science and Technology (UNCST)

[4] Department of Data Science, Gulu University

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Correspondence: fmukasa@yahoo.com

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Author notes

Felix Mukasa is affiliated with Gulu University and focuses on Computer Science research in Africa.

Grace Nabirya is affiliated with Uganda Christian University, Mukono and focuses on Computer Science research in Africa.

James Okello is affiliated with Department of Data Science, Gulu University and focuses on Computer Science research in Africa.

Alice Nakibinge is affiliated with Gulu University and focuses on Computer Science research in Africa.

Abstract

Uganda's secondary education system faces challenges in maintaining consistent quality across schools, necessitating robust evaluation methods. A systematic review approach was employed to synthesize existing literature on secondary education reforms in Uganda. Quasi-experimental studies were identified, analysed for validity and applicability, and synthesized according to a structured framework. Quasi-experimental designs showed significant variation in system reliability across schools; however, consistent dropout rates between 30-50% indicated areas requiring urgent intervention. While quasi-experimental methods provided valuable insights into the Ugandan secondary education landscape, further research is needed to tailor interventions effectively. Future studies should prioritise longitudinal designs and incorporate qualitative elements to enhance understanding of system complexities. Model estimation used $\hat{\{}\theta\}=argmin\{\theta\}sumiell(yi,f\theta(\xi))+\lambda lVert\theta rVert2^{2},$ with performance evaluated using out-of-sample error.

Keywords: *Sub-Saharan, stratified sampling, cluster analysis, validity, reliability, randomized controlled trials, impact evaluation*

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