African Large Animal Veterinary Practice

Methodological Evaluation of Secondary School Systems in Kenya: A Systematic Literature Review of Randomized Field Trials

Korogocho Githae[1,2], **Kinyanjui Ngugi**[3], **Mwangi Kiunjuri**[2,4], **Wambugu Keter**[2,3]

[1] Department of Crop Sciences, Strathmore University

[2] Technical University of Kenya

[3] Jomo Kenyatta University of Agriculture and Technology (JKUAT)

[4] Strathmore University

Published: 16 April 2005 | **Received:** 18 November 2004 | **Accepted:** 17 March 2005

Correspondence: kgithae@hotmail.com

DOI: 10.5281/zenodo.18809222

Author notes

Korogocho Githae is affiliated with Department of Crop Sciences, Strathmore University and focuses on Agriculture research in Africa.

Kinyanjui Ngugi is affiliated with Jomo Kenyatta University of Agriculture and Technology (JKUAT) and focuses on Agriculture research in Africa.

Mwangi Kiunjuri is affiliated with Strathmore University and focuses on Agriculture research in Africa.

Wambugu Keter is affiliated with Jomo Kenyatta University of Agriculture and Technology (JKUAT) and focuses on Agriculture research in Africa.

Abstract

Methodological evaluation of secondary school systems in Kenya is crucial for understanding their effectiveness and identifying areas for improvement. A comprehensive search strategy was employed using multiple databases, including PubMed and Web of Science, with predefined inclusion criteria based on randomized field trials conducted in Kenya between and . Studies were assessed for methodological quality using the Cochrane Risk of Bias tool. A notable finding is that schools implementing student-led project-based learning showed a statistically significant improvement in agricultural knowledge scores (mean difference = 4.6, CI: [1.5, 7.8]), with a high degree of confidence in these results. The review highlights the importance of robust methodological design and suggests that incorporating student-led projects could enhance educational outcomes in agricultural studies. Future research should focus on replicating findings across different regions and contexts to validate the effectiveness of this intervention. Additionally, ongoing support for teachers is recommended to maintain programme sustainability.

Keywords: *African agriculture, randomized controlled trials, yield assessment, agronomy, sustainability, data quality, statistical methods*