



Innovative Pedagogies in STEM Education: A Qualitative Study of Senegalese Contexts, 2009

Toussaint Konaté¹, Mamoudou Ndiaye², Seynabou Sow³, Amadou Diop^{2,3}

¹ Institut Sénégalais de Recherches Agricoles (ISRA)

² Université Alioune Diop de Bambey (UADB)

³ Council for the Development of Social Science Research in Africa (CODESRIA), Dakar

Published: 23 September 2009 | **Received:** 18 May 2009 | **Accepted:** 23 August 2009

Correspondence: tkonat@gmail.com

DOI: [10.5281/zenodo.18897914](https://doi.org/10.5281/zenodo.18897914)

Author notes

Toussaint Konaté is affiliated with Institut Sénégalais de Recherches Agricoles (ISRA) and focuses on Education research in Africa.

Mamoudou Ndiaye is affiliated with Université Alioune Diop de Bambey (UADB) and focuses on Education research in Africa.

Seynabou Sow is affiliated with Council for the Development of Social Science Research in Africa (CODESRIA), Dakar and focuses on Education research in Africa.

Amadou Diop is affiliated with Council for the Development of Social Science Research in Africa (CODESRIA), Dakar and focuses on Education research in Africa.

Abstract

In Senegalese educational settings, traditional teaching methods in STEM (Science, Technology, Engineering, and Mathematics) have been criticized for their lack of engagement and relevance to students' lives. The study employed ethnographic research methods, including participant observation, semi-structured interviews with educators and students, and focus group discussions in selected schools across Senegal. Data were analysed using thematic content analysis to uncover patterns and themes related to educational innovation. Innovative pedagogies such as project-based learning and interactive workshops have shown promise in engaging students more effectively, particularly those from marginalized communities where traditional methods are less effective. This study underscores the potential of innovative teaching strategies to improve STEM education outcomes and suggests that further research should be conducted to validate these findings across different educational contexts. School administrators and educators in Senegal are encouraged to integrate more innovative pedagogies into their curricula, with a focus on professional development for teachers to effectively implement such methods.

Keywords: *African education, qualitative research, STEM pedagogy, cultural adaptation, constructivist theory, ethnography, participatory action research*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge