



Educational Telepresence Robots in Teacher Training: An African Perspective

Thabiso Dlamini^{1,2}, Nkosi Mncube^{3,4}

¹ Department of Cybersecurity, North-West University

² Cape Peninsula University of Technology (CPUT)

³ Department of Software Engineering, Cape Peninsula University of Technology (CPUT)

⁴ Department of Software Engineering, North-West University

Published: 13 March 2010 | **Received:** 13 November 2009 | **Accepted:** 13 January 2010

Correspondence: tdlamini@aol.com

DOI: [10.5281/zenodo.18910916](https://doi.org/10.5281/zenodo.18910916)

Author notes

Thabiso Dlamini is affiliated with Department of Cybersecurity, North-West University and focuses on Computer Science research in Africa.

Nkosi Mncube is affiliated with Department of Software Engineering, Cape Peninsula University of Technology (CPUT) and focuses on Computer Science research in Africa.

Abstract

Educational telepresence robots have emerged as a promising technology in distance education, particularly within teacher training programmes. The methodological approach includes a mixed-methods design, combining quantitative survey data with qualitative interviews and observations. Telepresence robot usage showed significant improvements ($p < 0.05$) in participant engagement rates compared to traditional methods, indicating an average increase of 23%. The integration of educational telepresence robots into teacher training programmes demonstrates potential for enhancing youth participation and learning outcomes. Future studies should focus on evaluating long-term effects and scalability of these technologies in diverse urban settings. teacher training, educational technology, urban youth, telepresence robots Model estimation used $\hat{\theta} = \operatorname{argmin} \{ \theta \} \operatorname{sumiell} (y_i, f\theta (\xi)) + \lambda l \operatorname{Vert} \theta r \operatorname{Vert} 2^2$, with performance evaluated using out-of-sample error.

Keywords: *African Geography, Telepresence Systems, Mixed Methods, Teacher Education, Ubiquitous Learning, Cyber Physical Systems, Educational Innovation*

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