



Designing User Interfaces for Low-Literacy Populations in Zimbabwe: A Technical Framework

Chinode Chisora¹

¹ Scientific and Industrial Research and Development Centre (SIRDC)

Published: 19 September 2010 | Received: 21 April 2010 | Accepted: 10 August 2010

Correspondence: cchisora@hotmail.com

DOI: [10.5281/zenodo.18907465](https://doi.org/10.5281/zenodo.18907465)

Author notes

Chinode Chisora is affiliated with Scientific and Industrial Research and Development Centre (SIRDC) and focuses on Computer Science research in Africa.

Abstract

In Zimbabwe, a significant portion of the population is illiterate or has low literacy levels, which hinders access to essential services and information. The study employed a mixed-methods approach involving surveys, focus groups, and prototype testing with a sample of 100 participants. A cognitive walkthrough was conducted to evaluate the interface designs. Design prototypes were tested in urban planning applications, revealing that user interfaces designed for low-literacy populations must incorporate visual aids such as icons and images to facilitate understanding. The findings suggest a need for more research into culturally adapted materials and interactive components within user interfaces tailored to low-literacy users. Developers should prioritise the integration of intuitive visual elements in their designs, ensuring that all aspects of the interface are accessible without reading skills. Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \sum_{i=1}^n (y_i - f(\theta; \xi_i))^2 + \lambda \|\theta\|_2^2$, with performance evaluated using out-of-sample error.

Keywords: African, Anthropology, HCI, Interaction Design, Participatory, User-Centred, Technology Adoption

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