ABSTRACT

Global efforts to promote inclusive education and the benefits of assistive technologies (AT) for students with disabilities are widely recognised. However, substantial differences persist in how universities support these students across cultural and economic contexts. This comparative study examines the implementation of assistive technologies for students with visual and hearing impairments in higher education, focusing on how institutional policies, support systems, resource availability, and cultural factors shape technology use and student empowerment.

Case studies were conducted at the University of Ghana and Tallinn University in Estonia using maximum variation sampling to capture diverse experiences. Data were collected through interviews, focus groups, and document analysis involving 21 students with disabilities and 8 staff members between 2023 and 2024. The data were analysed thematically, informed by Critical Disability Theory and Capability Theory. The findings reveal both shared challenges and important contextual differences in assistive technology provision.

At the University of Ghana, limited resources fostered strong peer collaboration, creative problem-solving, and community resilience. In contrast, Tallinn University's greater resources enabled structured accessibility policies and individualised services that enhanced autonomy but sometimes encouraged dependency. Despite these differences, both institutions faced common barriers, including limited faculty awareness of assistive technologies and technical compatibility issues with institutional systems. Ableism was found to operate differently across contexts, adapting to local cultures in ways that shifted responsibility for accommodations onto students.

The study introduces the concept of culturally adaptive ableism and extends Capability Theory by demonstrating how cultural and institutional contexts shape the conversion of resources into real opportunities. It also proposes the Culturally Responsive Comparative Assistive Technology (CR-CAT) Framework, highlighting the value of reciprocal learning between Global North and South contexts.