

Bridging competency and context: Integrating cross cutting themes in mathematics education

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Abstract

The study explores the integration of cross-cutting themes in the teaching and learning of mathematics in Zimbabwean secondary schools. Informed by the philosophy of Education 5.0 and the heritage-based curriculum, the research investigates current pedagogical practices, challenges encountered by teachers and learners, and the role of school leadership in facilitating integration. A qualitative case study design was employed, using interviews, classroom observations, and document analysis to collect data from mathematics teachers, heads of departments, and school administrators. The findings indicate growing awareness among educators of the importance of themes such as environmental sustainability, gender equality, and ICT in mathematics education. However, integration remains inconsistent and often superficial. Teachers reported limited training opportunities, inadequate teaching resources, and insufficient institutional support as key barriers. Students demonstrated positive engagement when cross-cutting themes were contextualised and linked to real-life experiences, although curriculum rigidity and exam-focused instruction limited broader exploration. The study recommends targeted professional development to enhance teacher capacity for integrating cross-cutting themes into mathematics lessons. It also calls for clearer school-level policies, resource provision, and structured support systems. Collaboration among teachers, reflective practice, and continuous monitoring are emphasised as strategies for improving classroom implementation.

Key Terms: Cross-Cutting Themes, Heritage-Based Curriculum, Sustainable Development Goals (SDGs), Curriculum Integration, Zimbabwean Curriculum Framework