

Integration of existing indigenous knowledge within mathematics curriculum for primary schools in Kenya.

Silyvier Tsindoli, Khaemba Ongeti and John K. Chang'ach

Abstract

The current paradigm shift towards promoting education for sustainable development gravitates toward alternative approaches to school curricula in Kenya. To address some of the knowledge deficiencies that are currently formulated from the western perspective, this study focused on integration of existing indigenous knowledge within mathematics curriculum for primary schools in Vihiga County, Kenya. This study's objective was to identify the extent to which existing IK practices are applied in teaching of mathematical concepts. The study adopted Constructivism theory attributed to Piaget, Vygotsky's and Bruner. Cross-sectional design where both qualitative and quantitative data were collected concurrently using triangulation of tools such as; questionnaires, observation schedule and FGD guide. The target population were class six teachers of mathematics, for the purpose of getting a representative sample, proportionate sampling was used to select 10% (40) of the schools in the county. The sample comprised all the teachers of mathematics in the selected schools. Descriptive statistics was used to analyse quantitative data while qualitative data was analysed thematically and reported through narration. Findings indicated that knowledge that can be derived from various forms of the Luhya tradition is abundant in traditional decorations, weaving, constructions, games, storytelling and many others. From the findings the researcher concludes that this study was viable since majority of the respondents 80% (32) agreed on the existence of indigenous knowledge that could be applied in teaching math so as to help bridge the gap between what is usually taught in the classroom and what exists in the society and to socialize learners with math concepts. It is recommended that the exploration of the indigenous mathematical knowledge should be part of the curriculum design process and indigenous mathematical knowledge should be integrated into the school Mathematics curricula for clear understanding of concepts and for longterm retention of mathematical knowledge. Further research should be done in order to find ways in which IK can blend with modern technology to solve current problems.

Key Words: Integration, Existing, Indigenous Knowledge, Curriculum

Full text: https://www.iajournals.org/articles/iajsse_v2_i1_74_87.pdf