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Possibilities of integrating indigenous knowledge into classroom science: The case of plant healing

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Abstract

This study was conducted in an indigenous community of Tendera in Chiweshe District of Mashonaland Central Province in Zimbabwe. It pursued the possibilities of integrating indigenous knowledge of plant healing (IKoPH) into classroom science at The Zimbabwe Junior Certificate (ZJC) level. The study has documented this knowledge and has suggested ways that it could be integrated into the ZJC science curricula. My own background and the challenges of integrating indigenous knowledge into school science curriculum reform in Zimbabwe and elsewhere motivated me to undertake this study. This research journey preceded my full knowledge that these reforms encompass many complexities arising from two different knowledge systems. The integration process of indigenous knowledge in Zimbabwean schools has been very slow because of these complexities, which include lack of curriculum frameworks to guide teachers on what to teach, where to teach this knowledge in the westernised syllabi, how to access this knowledge from the community and how to teach it. Hence, the study argued that science teachers are in dire need of these guidelines and training. If this problem is left unattended, curriculum reform in Zimbabwe will remain a pipe dream.

The study was framed within a self-developed Culturally Aligning Classroom Science (CACS) framework. It used a qualitative approach to research specifically engaging the Indigenous African Interpretive (IAI) methodology. Qualitative data were generated with purposely sampled teachers, healers and learners as core participants and community Elders, Ministry officers/practitioners and researchers as key participants. It was generated through video/audio and/or diarised observations, conversations, personal experiences and objects (documents and artefacts). The "kitic" analysis of data generated three major themes that are: (1) the community of Tendera is rich in IKoPH and its members have disparate views of integration that are significant for integrative classroom science. This IKoPH, however, emerged to be a sensitive, secretive, diverse and complex body of knowledge which requires access through culturally appropriate strategies, which demand collaboration between the community and the school; (2) The ZJC science curriculum presents several opportunities for integration of IKoPH that shows that this integrated curriculum is possible in Zimbabwe; and (3) oral pedagogical frames grounded in the parallel pathway to integration are potentially supportive of effective integrative classroom science. The study offers two models that could help integrators to overcome the complexities inherent in this reform. Further research into different aspects of these models and teacher capacitation to adopt them is needed to develop an integrative classroom science discourse.

Key words: Classroom science; Culturally Aligning Classroom Science; Indigenous Knowledge; Indigenous Knowledge of Plant Healing; Integrative Classroom Science