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Indigenous knowledge and school science: possibilities for integration

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ABSTRACT

Prior to democracy in South Africa, education was used as a means to achieve segregation, privileging a minority of the population in both economic and worldview domination. With the attainment of democracy in 1994, educational reform was aimed at getting rid of both apartheid content and method. The aims and principles of the new curricula (the Revised National Curriculum Statement Grades R-9, the National Curriculum Statement Grades 10-12, and later on, the Curriculum and Assessment Policy Statements) were aligned to those of the national constitution, which include the establishment of human rights, inclusivity, environmental and social justice, and valuing of Indigenous knowledge systems. In the science subjects, teaching and learning are expected to acknowledge the existence of different knowledge systems. In the absence of clear guidelines as to which Indigenous knowledge to include and how, the recognition of IKS in science classroom has largely been left to the teachers' discretion.

The purpose of this interpretive research study, carried out in collaboration with a rural community in KwaZulu-Natal Province, was three-fold. The first was to identify the Indigenous knowledge held by the community and the worldview underpinning that knowledge. The second was to find out what knowledge could be integrated with classroom science, and explore ways in which such integration could be done, considering students' and community worldviews. The third was for the research to contribute to transformation in Indigenous knowledge research by following methods that recognised Indigenous knowledges, practices and languages as valuable. The findings from this study underscore the importance of extending the thinking about IKS-science integration beyond aspects that suit science content, to considering methods of teaching and learning science, as well as considering relevance to community needs.