

Editorial

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This year marks the end of the United Nations Decade of Education for Sustainable Development which was first proposed at the World Summit on Sustainable Development in 2002 in Johannesburg. At the end of 2014 UNESCO hosted the World Conference on Education for Sustainable Development in Nagoya, Japan. To mark this occasion Professor Rob O'Donoghue produced a reflective Think Piece that traces the emergence of education for sustainable development (ESD) from its educational roots in the Modernist project, to the diversity of practices that currently frame ESD as a transgressive process of cultural change. O'Donoghue interrogates tensions around knowledge and participation in the ESD terrain and proposes that knowledge-led and ethics-led learning in relation to valued purposes might create educational possibilities for expansive, transgressive and reflexive learning processes towards a more sustainable future. This Think Piece opens the Journal; many of the strengths, tensions and generative opportunities in environment and sustainability education referred to by O'Donoghue are reflected in this edition of the journal.

The first research article is by Ontong and Le Grange, who differentiate between 'sustainable development as a policy formulation' (around which education for sustainable development is orientated) and 'sustainability as a frame of mind'. They argue that the notion of 'sustainability as a frame of mind' rests on greater openness to, and concern for, nature and it shapes our attitudes and identities in relation to the environment. Ontong and Le Grange explore the potential contribution of place-based and place-conscious education (the pedagogy of place) in developing sustainability as a frame of mind. However, such changes in pedagogy require a metaphysical shift in which educators embrace more intimate, intuitive and non-technical educational encounters with the world. Such a shift, argue the authors, may be usefully framed by the African value of *ubuntu*.

The article by Le Grange and Ontong is followed by two differently focused papers that both reflect on conservation concerns. The paper by Lawhon and Grant addresses a major conservation concern in southern Africa, namely rhino poaching. They suggest that the media is instrumental in providing the public with environmental knowledge and increasing environmental awareness, and through their research, they investigate reporting on this issue in a national newspaper in South Africa, the *Mail & Guardian*. They note that most of the articles that they analysed were solution-oriented, with mitigation being the most frequently coded theme. They argue however, that coverage of issues such as rhino poaching is inadequate in that it does not include the relationship between the issues and the general public, potentially affecting how the public respond to such concerns. The second paper that picks up a conservation theme is the paper by Mukute and Pesanayi. They focus on the development and implementation of a professional development course on climate change adaptation and Transfrontier Conservation Areas (TFCAs) in southern Africa. The paper traces the trajectory from initial contextual profiling, to course design and then course implementation by the SADC Regional Environmental Education Programme. Drawing on Bernstein's theory of curriculum translation, in particular the concept of recontextualisation, Mukute and Pesanayi draw attention to the value of curriculum design that is 'contextualised' and curriculum implementation that is 're-contextualised'.

The next two papers focus on the 'green economy' and its implications for environmental education and sustainability in southern Africa. Pullanikkatil, Mubako and Munthali explore the integration of green economy principles into poverty alleviation projects in Malawi concerned with the transfer of renewable energy technologies. They draw on case examples of solar energy kiosks and solar fish dryers to demonstrate that explicit knowledge-sharing practices in relation to these projects, especially those centred on local, traditional knowledge, can enhance environmental education efforts. In the second paper concerned with the green economy, Godwell Nhamo interrogates the readiness of higher education institutions in Africa to respond to the green economy, especially in the light of climate change challenges. Nhamo argues for a whole system approach that responds not only to how institutions of higher education develop their curricula, but also to how they institutionalise green economy concerns within policy and research structures.

Ingrid Schudel's paper marks a turn to environment-oriented learning in formal schooling in this edition of the journal. Schudel recognises that questions of knowledge are central to South Africa's curriculum crisis and, as such, questions of environmental knowledge are central to quality environmental learning. Schudel draws on social realist curriculum theory to argue for context-rich (but not context-bound) explorations of local and global environmental issues and for the importance of open-ended and futuristic thinking in the context of the dynamism of environmental knowledge.

Molapo, Stears and Dempster's paper is also concerned with environmental knowledge, this time in the context of Lesotho's senior secondary biology curriculum. The paper reveals that, despite the Lesotho national curriculum's intention of developing action competence in learners, biology learners' sound theoretical knowledge does not appear to inform their everyday practices or develop their sense of environmental responsibility or agency. Molapo, Stears and Dempster trace this mismatch to a de-contextualised curriculum in which environmental knowledge is not translated into action.

The final paper of this edition is by Carolina Dube who presents case study data of three South African Geography teachers' perceptions of environment and sustainability concepts in the Geography curriculum. The paper reveals that all three teachers struggle to understand and apply the concepts of 'environmental education', 'sustainable development' and 'education for sustainable development'. Dube posits that, unless pre-service and in-service teacher education programmes address these conceptual difficulties, South African Geography teachers will remain ill-equipped to re-orientate their teaching to environmental education and education for sustainable development.