

Southern African Journal of Environmental Education
Education Quality on the Agenda

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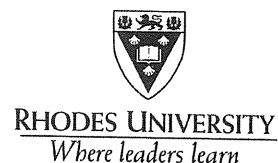
The Southern African Journal of Environmental Education (SAJEE) is an internationally refereed journal published once a year. The journal is published by the Environmental Education Association of Southern Africa (EEASA).

The SAJEE aims to publish and report on a wide range of aspects relating to Environmental Education, Ethics and Action in southern Africa and elsewhere. The journal seeks to further the study and practice of environmental education by providing a forum for researchers, scholars, practitioners and policy makers. The journal aims to carry papers reflecting the diversity of environmental education practice in southern Africa, and includes conference reviews and keynote papers, retrospective analyses of activities or trends in a particular field, commentaries on policy issues, comparative aspects of an environmental education, environmental ethics or environmental action issue, and critical reviews of environmental education, ethics and action in a particular country or context. The journal actively seeks out international dialogue in order to provide perspective on and for environmental education in southern Africa.

The Southern African Journal of Environmental Education aims to provide southern African and other authors with a forum for debate, and professional development. The journal incorporates an author support programme to encourage new authors in the field to establish themselves as professional writers.

Papers published in the Feature Article section of the journal are reviewed by two and at times three advisory editors. Keynote, Viewpoint and Think Piece papers are reviewed by one of the editors of the journal or an advisory editor.

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Editorial

The Scope of Teaching and Learning in Environmental Education

Heila Lotz-Sisitka, Rhodes University, South Africa

Environmental education involves a variety of teaching and learning processes which are diversely situated in a range of social and educational contexts. This diversity of scope is an interesting 'contour' of a field like environmental education. Contemporary environmental sciences and complexity studies draw our attention to an ever-changing world and to increasingly complex social-ecological issues, patterns and risks that require our attention. These too influence the scope of environmental education teaching and learning processes.

This edition of the Southern African Journal of Environmental Education provides a window through which we may see some of the scope of environmental education activities, research questions, learning and teaching settings, and educational activity. It also provides insight into the range of research methodologies that are being deployed to investigate the educational processes that are needed for re-orientation towards sustainability, equity, adaptability and transformation at the people-environment interface.

The first paper, by Christopher Masara, provides a case study of social learning processes and nature-culture relations in a context of transition from traditional to commercial beekeeping in Zimbabwe. The paper draws on a model of social learning to probe the learning processes in the social interactions shaping an emerging community of commercial beekeepers and their small- and medium-enterprise development practices. The paper illustrates how the practice of engaging communities in participatory expansive learning research could benefit from more refined tools for understanding the open-ended contours of social learning interactions and social practices that occur (and change) at the nature-culture interface. The study shows that social learning involves a complex mix of historical, technical, political, economic and ecological factors which are contextually 'woven' together in different co-evolutionary patterns over time as circumstances change, and as people exercise learning and agency in response to the challenges that arise as circumstances change.

Different to the community learning case study provided by Christopher Masara, the paper by Michelle van der Merwe considers environmental education teaching and learning in a formal school setting. She investigates the patterns of practice associated with the use of learning support materials produced by the African Coelacanth Ecosystem Programme (ACEP) and shows that the stated intentions for use, as well as the stated use (by teachers) is not fully realised in the actual classroom practice of teachers. The study sheds light on the relationship between assumptions embedded in learning support materials and actual patterns of practice in schools.

Moving from community-based teaching and learning (in the Masara paper), and school-based teaching and learning (in the van der Merwe paper), the third paper in the journal

focuses on teaching and learning in a university context. Writing from Ethiopia, Aklilu Dalelo reviews how the paradigm of sustainable development is being integrated into the revised undergraduate curriculum for Geography at Addis Ababa University in Ethiopia. Using content analysis, Dalelo identifies 20 issues from the first and second sections of *Agenda 21*. These are used to investigate the extent to which sustainable development issues have been integrated into three out of five categories of courses. Results show that while the three ‘pillars’ of sustainable development are represented across the courses, they tend to be dominated by the social and economic aspects. The study also reports an attempt to promote an integrative approach. The content analysis is complemented by a pedagogical analysis, in which methods of delivery are identified. Findings here indicate that while changes have been made to content within an integrative framework, the dominant method remains classroom-based delivery of content.

Writing from Jamaica in the Caribbean, Lorna Down deliberates on teaching and learning in education for sustainable development (ESD) initiatives in the Caribbean. The study focuses particularly on the service learning programme, arguing that service learning provides an adequate framework for ESD pedagogy. She points out that while ESD promotes more socially, economically and ecologically relevant education that is oriented towards the public good, universities often lack pedagogical approaches to engage these ideals. Service learning is based on a philosophy of education which sees education as developing social responsibility and education that prepares learners to be involved as citizens of a democracy. Through analysing a range of service learning programmes in the Caribbean, Down proposes that ESD requires a dialogic, rather than an hierarchical relation between academia and community, and that universities can engage such processes by positioning themselves within communities, working in more focussed and integrated ways to contribute not only to broader, universal knowledge but also to community and social-ecological transformations and well-being.

Continuing with the theme of the ethical and pedagogical dimensions of environmental education, and how these ‘come together’ in educational practices and processes, Lausanne Olvitt considers the ethical deliberations of a learner practitioner in a professional development course noting how different activity systems interface to produce the ethical discourses and practice: of what she calls ‘learner practitioners’. Her paper points out that the scope of environmental education, while ostensibly being located in the context of a training programme, is in fact constituted through interacting activity systems. Focussing on the case of one learner, she identifies tensions and contradictions that exist in the learner-practitioner’s activity system as he learns in the workplace and on the course, tracing this to the wider influences of national qualifications frameworks and local cultural histories.

Following the Olvitt paper is a paper by John Kioko, John Warui Kringe and Geff Wahungu. This paper considers youth’s knowledge, attitudes and practices on wildlife and environmental conservation in Maasai land, Kenya. Working with a stratified population sample with even-spread gender, students in lower primary, upper primary and secondary schools were interviewed. Maasai *morans* – informally educated Maasai youth – were interviewed as well. Results showed that youth whose parents were more engaged in tourism activities were more positive towards wildlife and environmental conservation. The study also reports that schooling and participation in extracurricular activities through clubs positively influenced youth

perceptions of wildlife and environmental conservation. The study concludes that increased support for education (and environmental education) amongst the youth can be beneficial to wildlife and environmental conservation. The authors also reflect critically on their own 'bias' and interest in the formulation of the research questions and research instruments, providing a reflexive perspective on attitude and perceptions research.

Turning more towards the way in which environmental factors influence learner performance, the paper by Gerrie Van der Linde, Luzelle Naudé and Karel Esterhuysen examines the extent to which environmental quality and time perspectives can account for variance in academic performance of Grade 12 learners. The study found that time perspective and environmental quality accounts for approximately 14% of the variance found in the academic performance of Grade 12 learners, but that environmental quality was not found to be contributing significantly to variance in academic performance of learners (as measured in this study). The authors define environmental quality as a relational phenomenon, involving 'relations between things and things, things and people, and between people and people' (p.103, this edition).

Discussing environmental education methodology in university curricula, Michèle Stears' Viewpoint paper presents a report of a small-scale study on how experiential learning, in the form of fieldwork, contributes to learning in Biology. A theoretical framework using Kolb's perspectives on experiential learning is presented, and data from a small sample of students is analysed following fieldwork. Results from the study provide some useful early insights on the influence of fieldwork on the affective and cognitive domains, which require further testing and research. As such the paper is published not as a full research paper, but as a Viewpoint paper.

The Viewpoint paper by Stears is followed by a viewpoint paper by Justin Lupele and Charles Namafe, who deliberate how university curricula, taking an interdisciplinary approach, can be developed to respond to complex issues and risks. The paper therefore provides insight into how interdisciplinary approaches can be constituted in university settings, and uses the case of the development of the University of Zambia's undergraduate Environmental Education degree. The reflections on the development of this curriculum point to some of the realities of adopting inter-disciplinary approaches in higher education, most notably the complexities of obtaining relevant expertise, co-operation amongst faculties, development of suitable learning and teaching materials, and job market implications of interdisciplinary courses.

Also on the subject of interdisciplinary university curricula, the Viewpoint paper by Tania Katzschner deliberates what kind of university knowledge environment may be needed to respond to an ever more complex world, which she describes as being in 'the grip of multiple crises'. She argues that new forms of understanding are needed in such a context, and that the traditional disciplinary structure of universities is inadequate for enabling the kinds of learning necessary to engage such a complex context. Her view is that there is a need to value and mainstream interdisciplinarity in research and education, an issue which she raises as a 'researchable question', implying that further research needs to be done on this. She further outlines some areas of action that may also be researched in the context of the wider research question on interdisciplinarity in higher education settings. Unlike the paper by Lupele and Namafe, Katzschner's paper does not address a specific context or empirical example of interdisciplinary university curriculum development; it merely seeks to 'make the case' for such curriculum development.

The final Viewpoint paper, by Sheperd Urenje, comments on one of the mechanisms that has been put in place by the United Nations University to strengthen ESD at regional level – namely, RCEs or Regional Centres of Expertise. Urenje examines RCEs drawing on some of the concepts in the community of practice literature. His interest is to examine whether RCEs can ‘qualify’ as communities of practice, based on how these are described in some of the research literature. He also uses a typology of ‘stages of development’ of communities of practice to categorise the two RCEs examined. His view is that communities of practice literature can provide some useful tools to examine both the formation and functioning of RCEs.

Two things are striking about the contributions to this edition of the journal. Firstly there is a keen interest in interdisciplinary and boundary-crossing approaches. The Masara paper, for example, examines learning in processes of co-evolution of nature-culture relations; while a number of other authors such as Lupele and Namafe, Katzchner, Dalelo and Van der Merwe consider how such inter-disciplinary approaches ought to be conceptualised and/or how they are implemented. Secondly, there is an interest in pedagogies and methodological approaches such as the Stears Viewpoint paper which reviews experiential learning methods, the Dow paper which reviews service learning methodologies and the Olvitt paper which reviews interacting pedagogical systems and how they shape or influence learners’ ethical deliberation and practices. The papers also reflect the diversity of contexts in which environmental education research is taking place: communities, schools, universities and workplaces.