



Viewpoint Paper Curriculum Development for the Kids in Parks Programme

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Abstract

As the curricula for environmental education programmes need to change continuously to reflect our constantly changing understandings of the environment and of environmental issues, clear and specific guidelines are required to assist in this process. This viewpoint paper reviews various resources that suggest what environmental education curricula should contain, as well as some strategies proposed to implement these in practice. Any curriculum design process normally seeks to identify processes that should feature in environmental education curricula, but environmental education curricula are often also 'context-bound', as they are dependent on and are situated in various environmental contexts – as in the case of this study of the majority of the biodiverse national parks managed by the South African National Parks (SANParks). Thus there is a tension between general aspects of curriculum and situated aspects of curriculum; and there is also a need to determine which of these in particular could assist with rearticulation of the Kids in Parks Programme offered at various national parks in South Africa. If implemented, these generic guidelines, together with their context sensitivity (as each national park is different), could serve as a core framework for all Kids in Parks programmes and be adapted for each park context. 'Curriculum' in this viewpoint paper does not mean 'school curriculum', but rather those guiding principles, concepts and approaches that guide teaching and learning with regard to the Kids in Parks Programme.

Introduction

Understandings of, and approaches to, environmental education have undergone numerous changes since the Tbilisi Conference in 1977 when the principles of environmental education were originally formulated. Current approaches suggest that environmental education is essentially a process leading to forms of social change and that an analysis of its development and various manifestations should lead to an improved understanding of what we understand by, and expect of, the concept. However, irrespective of the depth of this analysis, it is difficult to formulate an exact definition of environmental education precisely because of its evolving nature (Pace, 2010). Traditionally, environmental education was offered as nature study, conservation education and outdoor education (Moroye, 2009). Subsequently, it evolved into broader ecological education with a strong emphasis on the social dimension, and, more recently, education towards sustainable development. These changes have inevitably influenced environmental education programmes and curricula. According to Kyung-Ok Kim (2003), curricula and programmes need to be evaluated to determine if they reflect contemporary understandings of the environment and of environmental education, and,

consequently, it is necessary to reflect on current thinking when developing curricula and programmes.

Environmental Education and Sustainable Development

Environmental education is often viewed as a key step towards sustainable development (Benedict, 1999). Jickling and Wals (2007) comment somewhat critically on the view that education for sustainable development has been widely seen as a new and improved version of environmental education. They note, however, that such a trend is visible mostly at the national policy level of many countries. Since the earlier Rio Earth Summit in 1992, and the later World Summit on Sustainable Development in Johannesburg, South Africa, in 2002, efforts have been made to establish action plans to address global inequality and poverty, resulting in the Plan of Implementation to achieve the Millennium Development Goals designed to improve people's lives, which plan was agreed to by global governments in 2000. These goals form the basis of most national policy discussions related to sustainable development, although they, too, have been critiqued for being limited in scope (especially the environmental goal, No. 7), and education is still seen as one of the more effective means to confront these challenges (Hopkins & McKeown, 2002). Education programmes, such as Kids in Parks, have to keep abreast of these changes.

The Kids in Parks Programme

The Kids in Parks Programme was conceptualised in 2004, and implemented in 2005, and aims at promoting access for previously disadvantaged teachers and learners to a number of the national parks. The programme has been offered by SANParks in association with the Department of Education, the then Department of Environmental Affairs and Tourism (now the Department of Environmental Affairs) and a major national retailer. The memorandum of understanding among the partners was signed in 2005, initially for a period of three years, but it has subsequently been extended.

The curricula for the Kids in Parks programmes offered at the various national parks differ from one another, not only because each is situated in a unique natural setting, but also because each park's interpretive section is responsible for the development of its own programme curriculum. Because of this diversity in practice, the programmes vary considerably and some may not necessarily achieve the intended objectives. Environmental education programmes offered in the national parks have had to change from an almost total focus on (nature) conservation to the concept of sustainable utilisation, since this is a key interest of national biodiversity policy at present – although it is not practised as such in the national parks, which have a core conservation mandate in terms of national biodiversity policies (RSA, 2003; 2004). However, conservation concepts and practices have also been changing, and SANParks, for example, incorporates concepts of adaptive management into mainstream conservation management, and also increasingly works with ecosystem and ecosystem services concepts to guide conservation, as is also outlined in the national policy (RSA, 2003; 2004).

Given these changes in policy and practice, it may be necessary to identify generic guidelines that Kids in Parks environmental education programmes should comply with and which would contribute to achieving the objectives of the Kids in Parks Programme, such as to design environmental education processes to develop respect for national heritage and to promote a commitment to contribute to sustaining this heritage, and to provide meaningful environmental learning to equip the leaders of tomorrow with the knowledge, skills and values required to take action for the environment (Kids in Parks, 2008).

In line with the evolution of environmental education, the question can be asked: Which environmental education processes, concepts and approaches should feature in curricula, and which of these are particularly relevant to the Kids in Parks Programme? This calls for a review of recent trends in environmental education, and, in particular, of how these should be reflected in Kids in Parks given the unique context of this programme.

Trends in Environmental Education Curricula

With the intention of evaluating environmental education curricula to determine whether they do in fact adhere to a required substantive structure that delineates environmental education content knowledge, Gardella developed an inventory in 1986. He expanded the inventory in 1993, but it had to be revised to reflect changing thinking in environmental education. One such revision was undertaken by Kyung-Ok Kim in 2003, and, though elements of the social sciences and environmental sensitivity were addressed, it has become necessary not only to reflect on current trends in environmental education, but also to consider localisation and the specification of criteria that such programmes and curricula should meet.

Environmental programmes are social constructs and should be an extension of society, of culture, and of economic and physical conditions (Wong Bing Kwan & Stimpson, 2003). As environmental educators develop programmes, they translate their assumptions, ideas, values, and attitudes into objectives, content and pedagogy. 'It is not possible to talk about context-free environmental education curricula. It is the situatedness that defines what is valid knowledge' (Wong Bing Kwan & Stimpson, 2003:124). There are consequently various opinions about what the primary goal of environmental education programmes should be. Carrier (2009) suggests that environmental education should develop an environmentally literate society and that one obstacle to developing environmentally literate citizens is the lack of awareness of everything that influences environmentally responsible behaviour. According to Carrier, knowledge and attitude are essential contributors to environmental behaviour.

Environmental knowledge is often interpreted as scientific knowledge, but there is an important distinction between science and environmental education, 'because it [environmental education] adds the requirement, beyond personal and social moral principles, that what we do needs to be inherently right for the planet, hence environmentally moral, as well' (Hart, 2002:1244). Though agreeing that scientific knowledge is important, Summers and Childs (2000) argue that it is only one aspect of the complex knowledge base that is required. Effective environmental education should begin by providing a knowledge base that occurs in real settings and that involves active participation on the part of learners (Basile, 2000).

Besides knowledge, affective attributes should also be addressed. Kyung-Ok Kim (2003) refers to environmental sensitivity as an affective attribute and points out that environmental sensitivity has been described as: viewing the environment from an empathetic perspective; taking an interest in learning about the environment; feeling concern for the environment; acting to conserve the environment; and empathy for the environment. Affective attributes were not addressed in Gardella's inventory but were included by Kyung-Ok Kim's (2003).

Besides sensitivity, belief systems, morals and values contribute to attitudes, as these determine environmental actions (Carrier, 2009). Values are a personal belief that an individual or society considers important and are the code of conduct that demonstrates a particular belief (Hartsell, 2006). Beliefs start to be formed early in children's lives and lead to the formation of attitudes. This takes beliefs to another level, because they contain aspects of emotion and potential behaviour. 'The sum total of a person's beliefs and attitudes creates a belief system the formation of which is an ongoing, life-long process. A belief system is subject to continuous revision as a person's socialization style changes' (Hartsell, 2006:266). When someone's lifestyle continuously reflects specific, closely aligned attitudes, a value system has been internalised. Values are convictions that one particular level or mode of conduct is preferable to another, and they are an essential part of any learning experience. Environmental education should therefore aim to prepare current and future generations to think environmentally, ecologically, and towards sustainability, and to act accordingly.

Knowledge (or the cognitive) and the emotional (or the affective) are inseparable. The whole person has to be considered. However, particular skills are also required, and teachers or environmental educators should consequently keep in mind that they are teaching values clarification skills and not the values per se (Hartsell, 2006). To be able to take any environmental action, current generations should acquire skills that are essential for problem-solving, decision-making, interdependent work and holistic thinking (Tenam-Zemach, 2010). If we want learners to be able to make rational, defensible decisions, they must be given the opportunity to master action competence, because it would be pointless if learners knew that something should be done, but do not know how to go about addressing a particular issue. They need practice in making decisions, and the competence in what amounts to political organisation, to enact their choices (Tan & Pedretti, 2010). The success of this approach has often been questioned based on a perception that where poverty is rife, environmental concerns and, particularly conservation efforts, become irrelevant. Such critiques, however, tend to reduce conservation to 'green issues' and fail to see the close relationship that exists between natural resource use (sustainable use), conservation and livelihoods for many people who live in poverty (Shackleton, Campbell, Lotz-Sisitka & Shackleton, 2008).

Gilmiarova, Tsvileneva, Krasnogorskaya, Khalikov and Smejtek (2000) point out that environmental education practices differ depending on specific conditions in each country. They argue that, although the view is often held that environmental problems can only be addressed when societal conditions improve, economic and political problems are linked to environmental problems such as the depletion of natural resources and overconsumption. Consequently, the argument that people will only change their attitudes and behaviours in respect of the environment once their personal conditions improve should not serve as

justification for inactivity. Not only should people be able to identify environmental threats, but, as alluded to earlier, should also be able to do something about them. The Southern African Development Community (SADC) Regional Environmental Education Programme's 2006 assessment of what southern African environmental educators thought was relevant for education in the United Nations Decade of Education for Sustainable Development showed, for example, that there was a need to integrate action competence and knowledge of alternative, more sustainable practices into conservation and environmental education (Lotz-Sisitka, Olvitt, Gumede & Pesanayi, 2006).

The Implications in Practice

From the preceding discussion it becomes apparent that particular knowledge, attitudes and skills should be included in environmental education programmes. The difficulty lies in deciding what to select, how to realise the selection in practice, and how to determine the effectiveness of the selection and integration. In the context of the Kids in Parks Programme, this also needs to be done in relation to the unique biodiversity and ecosystem of each park environment.

Tenam-Zemach (2010) identifies five knowledge themes, namely climate change indicators, biodiversity, human population and overconsumption, the presence and impact of environmental pollution, and the earth as a closed system, that are integral to the environmental problems people currently face. As these are accepted environmental education issues, they are often included to varying degrees in curricula and programmes, albeit at an introductory level. Besides these common issues, there are other elements that should also be considered, and in a national parks context it could be expected that the curriculum would potentially emphasise biodiversity as a key element or knowledge theme, not necessarily to the exclusion of other themes. Social studies and cultural values play important roles in environmental education (Moroye, 2009). Alagona and Simon (2010:193) use the term 'environmental humanities' to refer to non-scientific areas of environmental education, such as environmental history, philosophy, literature, ethics, art and cultural geography. Their research proposes an interdisciplinary, place-based environmental programme to encourage learners to move beyond compartmentalised learning and to engage in 'holistic thinking that is necessary for humanistic scholarship and that is required to understand complex environmental problems' (Alagona & Simon, 2010:193). According to Tan and Pedretti (2010), place-based education is a contemporary idea that has attracted much attention among the education community, as it uses local environmental issues to contextualise abstract concepts. It recognises the importance of local issues over approaches that focus on a generalised, abstract social good. Place-based learning requires being 'outside the classroom in an attempt to connect with natural and human communities and engage in action and agency' (Tan & Pedretti, 2010:65), and 'environmental issues seem to offer ideal place-based education opportunities, balancing local and global contexts with powerful knowledge'. This supports the view of Smith (2007) who suggests that, through place-based education, learners are provided with authentic opportunities to address community and environmental problems. In this way, learners can develop a sense of affiliation with the places where they live and can enhance their familiarity with what is beautiful and worth preserving in the area they call home.

However, there are various approaches and strategies to provide such opportunities in practice.

When an environmental education programme is offered in an outdoor setting, it should not be limited to the scientific study of the natural environment, but should also involve exploration of the many cultural, aesthetic and recreational aspects of the natural environment (Wilson, 1994) and, as in the case of Kids in Parks, of the heritage and social–ecological relationships that exist too. Thus the activities and teaching methodologies used in environmental education programmes should contribute to the development and mastery of many aspects, including ethics, as most decisions concerning how to address environmental issues involve moral agency and social trade-offs (Ashley, 2000). Hart (2002) agrees, stating that ethics, particularly those related to moral values, may be more important than knowledge to motivate people to take action. Learners should learn the concepts and develop the skills to handle moral issues both independently and cooperatively within a social-learning framework. The issues that are considered should have relevance to the learners' daily lives.

Pace (2010) argues that environmental education should address the issues that are experienced every day at grassroots level, and that, to do so, environmental education programmes need to engage learners individually. If particular competencies need to be developed, programmes have to be learner-centred so that the learners can take steps to reflect on their own sustainable lifestyle patterns. As Pace (2010:321) points out, 'a competence is what one can do (ability) in a given context, based on what is learned (knowledge), to achieve a set aim and produce meaningful knowledge'. He identifies three main areas of competences. The first is cognitive and metacognitive competences that enable individuals to learn about the environment and understand its dynamics, including the interaction of the various environmental components, and to contextualise the knowledge they have learnt. Secondly, action and behavioural competences have to be developed to empower the individual to play an active role in addressing environmental problems. Finally, social and citizenship competences need to be addressed to enable learners to form groups and work effectively in these groups. Wiek, Withycombe and Redman (2011) also show that systems-thinking and anticipatory competences are part of sustainability competence. The context of a national park is a wonderful setting for teaching about ecosystems and how they relate to social systems.

The preceding discussion highlights particular requirements and guidelines that the curricula for environmental education programmes should consider, and how these can be realised in practice. Based on these requirements, a set of guidelines or a framework for assessing environmental education curricula, particularly for the Kids in Parks Programme, can be formulated.

What Could Be in the Kids in Parks Curriculum?

As the Kids in Parks Programme aims at promoting access for teachers and learners to their nearest national park, as well as opportunities to learn in these settings, the localisation of issues and the associated knowledge of these issues should feature prominently in the curriculum. As the programmes are nature-based and are offered in a biodiverse, rich natural setting, the knowledge base related to each particular natural context should feature prominently and

should be shared with learners through nature-based activities. The involvement of learners in identifying particular issues affecting their communities and 'their' park, and the development of the necessary skills to address these, is of critical importance. Learners should develop action competence, even if at a basic level, to enable them to address environmental challenges they may face in their daily lives. Besides the mastery of basic knowledge and the development of skills, attention should be given to the incorporation of a value system that encompasses sensitivity, beliefs and attitudes. Finally, as one of the objectives of the Kids in Parks Programme refers to sustaining the national heritage, this concept should be included in all its dimensions: natural, cultural and historical. Such an experience in a national park could help to develop the many competences seen as important in environmental and sustainability education mentioned above.

Conclusion

This viewpoint paper has reflected on what the curricula of environmental education programmes in the Kids in Parks Programme could contain. The discussion above provides broad guidelines for reviewing environmental education programmes, including the Kids in Parks Programme. It has also shown what could be considered for practice in the Kids in Parks Programme. The proposed focus on acquisition of relevant environmental, ecosystem and biodiversity knowledge, attitudes and values that reflect the relationship that exists between people, natural resources and heritage, and action competences or abilities to participate in alternative practices, and their application to a broad understanding of heritage, can be used as a guideline to review current Kids in Parks Programme curricula in the different park contexts. What would be of interest is to consider the implications of the unique, 'place-based' nature of the Kids in Parks environmental education programmes across diverse parks, as well as the more general perspectives offered above. This could contribute to the development of potentially enriched environmental education curricula for the programme.

Notes on the Contributor

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