Studies in Educational Evaluation 41 (2014) 124–132

Contents lists available at ScienceDirect

Studies in Educational Evaluation

journal homepage: www.elsevier.com/stueduc

Education for sustainable development (ESD): Exploring anthropocentric–ecocentric values in children through vignettes

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ARTICLE INFO

Article history:
Received 6 May 2013
Received in revised form 16 December 2013
Accepted 17 December 2013
Available online 25 January 2014

Keywords:
Education for sustainable development (ESD)
Environmental education (EE)
Sustainable development
Vignette

ABSTRACT

The study of moral reasoning in relation to sustainable development is an emerging field within environmental education (EE) and education for sustainable development (ESD). The vignette method was used to evaluate the perception of the relationship between environmental and social issues in the Dutch upper elementary school children. This case study is placed within two broad areas of tension, namely between the need to address urgent environmental problems and to promote pluralistic democratic learning; and between the value of environment as an economic asset and deep ecology perspective. Results of this study indicate that the children are able to critically think about the moral dilemmas inherent in sustainable development and distinguish between different values in relation to environment.

Introduction

Largely inspired by *The Limits to Growth* publication (Meadows, Meadows, Randers, & Behrens, 1972), environmental education (EE) attempted to develop the necessary skills to address the challenges, and foster attitudes, motivations, and commitments for the protection of environment (UNESCO-UNEP, 1976; UNESCO, 1977). Different types of EE practices shared a number of objectives – the need for the austere measures, such as addressing trends in population and consumption growth, and the need to protect the environment against adverse effects of economic developments – thus supporting education *for* nature. Pedagogically, EE often took the form of education *in* nature, including the outdoor education (e.g. Hammerman, 1980), experiential education (e.g. Itin, 1999), and education for deep ecology (e.g. LaChapelle, 1991). Conservation education (e.g. USDA, 2013) has its roots in these earlier forms of education.

While empirical evidence is accumulating to support the projections predicted by the *Limits to Growth* model (e.g. Wijkman & Rockström, 2012), concerns about the planet seem overshadowed by the rhetoric of sustainable development with the aim to harmonize economic, environmental and social objectives. Mimicking sustainable development objectives education for sustainable development (ESD) seeks to engage, empower, and encourage democratic participation. ESD often focuses on equitable distribution of environmental risks and benefits or environmental justice, and concerns about provision of natural resources for future (human) generations (e.g. UNCED, 1992, chap. 36; UNESCO, 1997, 2009). Recent articles call for "humanizing" education by highlighting the ways in which environment *benefits* humans (Strife, 2010). Following this humanistic tradition, ESD has evolved into the multiplicity of forms including peace education, human rights education, development education, health education, HIV/AIDS education, gender education, inclusive education, multicultural education, holistic education, global education and citizenship education (Wals, 2012:17).

Critical scholars have pointed out anthropocentric bias in many of these forms of ESD (Bonnett, 2003, 2007, 2013; Kopnina, 2012b; Sandell & Öhman, 2010). Preoccupation with social and economic equality is quite different from the earlier emphasis on environmental protection, and students are rarely taught to recognize the intrinsic value of nature (Bowers, 2002; Orr, 1994). It was proposed that educational researchers need to unmask the political dimension of sustainability, and look beyond the relativist and objectivist divide (Sund & Öhman, 2013).

The study of moral reasoning in relation to sustainable development and environment is an emerging field within EE and ESD (e.g. Kronlid & Öhman, 2013). Most environmental issues can be considered to be social dilemmas (Kortenkamp & Moore, 2001) involving sophisticated moral conceptions, centered on notions of rights, freedoms, justice, equality and respect (Kahn, 1997:1095). This article aims to evaluate children's perceptions of the relationship between environmental and social issues at the upper elementary school in The Netherlands.

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http://dx.doi.org/10.1016/j.stueduc.2013.12.004

This case study is placed within two broad areas of tension within EE and ESD. One area of tension is situated between the need to instrumentally address the urgent environmental problems; and the need to promote democratic learning that avoids deterministic approaches (e.g. Wals, 2010). Another area of tension is between the value of environment as an economic asset used for advancing social and economic aspects of sustainability and the ethical questions concerned with the intrinsic the value of environment (e.g. Bonnett, 2013). We shall address how these tensions are translated into the children's moral reasoning about sustainable development.

Pluralism and instrumentalism

The tension within EE/ESD reflects a number of ideological currents in the Western society. One of these currents is the criticism of economic development (and thus the idea of sustaining this development) based on realization of the underlying complexity of sustainability debates and inability to decide what exactly is needed to achieve it (e.g. Van Poeck & Vandenabeele, 2012).

This realization can be in part explained by the contradictions and paradoxes inherent in the term sustainability (e.g. Stevenson, 2006). Wals and Jickling (2002:223) reflect, 'when comparing the sustaining of ecological processes with the sustaining of consumerism we immediately see inconsistencies and incompatibilities of values, yet many people, conditioned to think that sustainability is inherently good, will promote both at the same time'. The aims of both maintaining a growing and increasingly wealthy population and protecting the environment – especially if environment is to be conceived as being broader than only 'natural resources' – are mutually incompatible (Rolston, 2014). According to Bonnett (2007) sustainable development as a term allows for such vagueness that it has enabled the policy-makers and commercial enterprises to give the impression that they are concerned to do one thing – such as sustain natural ecosystems – while in fact attempting something quite different – such as sustain conditions for the continuance of economic growth.

To deal with the vagueness and potential conflicts of sustainability discourse, educational scholars have warned about the potential bias of neoliberal ideology supported by political elites and corporate sponsors (Stevenson, 2006). Within this critical tradition, instrumentalist perspective in EE supports a recurrent call for the recognition of the urgency of environmental problems and the necessity to educate people to change their attitudes and behavior in order to address these problems. This call is reflected in environmental ethics that engage with the debates about environmental values, discussed below. Once the values are clearly established, education for strategic environmental behavior becomes crucial to achieving these ends (Chawla & Cushing, 2007).

Uncertainty about sustainable action can also result in the reluctance to engage in education for specified ends, emphasizing values such as democracy, freedom, empowerment, individualism and self-determination (e.g. Læssøe, 2010). Students, it is reasoned, should not be told what to do, but rather learn to be active participants in the pluralistic discussions, showing respect and engagement with the sometimes opposing points of view (e.g. Öhman, 2006). 'Learning *from* sustainable development' rather than learning *for* sustainable development gears the educational practice toward articulation rather than resolution of concerns about sustainability and environment, avoiding moral (good vs. bad) or rational (right vs. wrong) terms (Van Poeck & Vandenabeele, 2012:548). Pedagogically, this calls for the process-oriented social learning, participation, capacity-building, self-determination and interactive ways to engage multiple stakeholders (Wals, 2012:26).

Reflecting on values

Reflecting on these ideological trends, recent publications in EE and ESD journals[1] focus on the debates between those who propagate an instrumental approach to education, with its emphasis on education *for* environment or *for* sustainability (e.g. Bonnett, 2003, 2007; Fien, 2000; Kopnina, 2012a) and those that take a more liberal, open, democratic or pluralistic approaches cautioning about the dangers of educational indoctrination (e.g. Jickling, 1992; Öhman, 2006; Wals & Jickling, 2002). While one does not exclude the other, as the students can be educated *for* particular ends *through* democratic, open or social learning. However, one of the most salient points of difference is prioritization of values as part of educational objective. In the case of the instrumental approach, the value is often assigned to the environment itself, with its protection as the educational aim, either for the sake of future generations (as a natural resource) or for environment's own sake (intrinsic value). In the case of pluralistic approach, the priority is given to social values, such as democratic representation, which overrides environmental concerns. This value allocation calls for the analysis of moral reasoning about sustainable development and environment.

One attempt at clear articulation of the value emphasis on either social or environmental issues is through evaluations of EE and ESD. The effectiveness and articulation of value of ESD initiatives, along with the measurement and evaluation of their progress, remain open questions for education professionals (Reid & Scott, 2006). Different types or stages of ESD evaluations have been identified, including front-end evaluations, process evaluations, as well as outcome and impact evaluations (Zint, 2011), as well as generic (international) and context-specific (national) ESD evaluations (e.g. Tilbury, 2012). Such evaluations include on-line techniques such as *Sustainability Evaluation Checklist* www.wmich.edu/evalctr/wp-content/uploads/2010/06/SEC-revised1.pdf and *My Environmental Education Evaluation Resource Assistant* MEERA, www.meera.snre.umich.edu; *Place Based Environmental Education Evaluation Collaborative* (www.peecworks.org); and *Auditing Instrument for Sustainability in Higher Education*, AISHE (www.eauc.org.uk/audit_instrument_for_sustainability_in_higher_educ). Most evaluative strategies are targeted at assessing efficacy of general 'sustainability competencies' (Wesselink & Wals, 2011).[2] However, no significant studies of moral reasoning about sustainable development and environment with reference to EE and ESD have been conducted.

The value of environment

In an interview with The Ecologist (Lee, 2010), Paul Collier has linked the moral objective of fighting poverty with the idea of nature as a commodity, pointing out that nature's preservation is only important in as far as it serves economic interests of the poor. Collier argues that the only ethical responsibility and only rights lie between present human and future human generations:

> If you take a rights-based view, we don't have the right to plunder our natural assets and not leave anything to the future or plunder our natural liabilities and leave a huge load for the

[1] For example, Environmental Education Research (EER), Journal of Environmental Education (JEE), Canadian Journal of Environmental Education (CJEE); Journal of Education for Sustainable Development (JESD) and International Journal of Sustainability in Higher Education (IJSHI).

[2] There is a wealth of literature which evaluates individuals' values, worldview and attitudes regarding the environment including the anthropocentric–ecocentric continuum, such as the NEP-scale (Dunlap & Van Liere, 1978) or CHEAKS (Leeming, Bracken, & Dwyer, 1995). See also tools for environmental practitioners on conservation psychology site http://www.conpsychmeasures.com/CONPSYCHMeasures.