

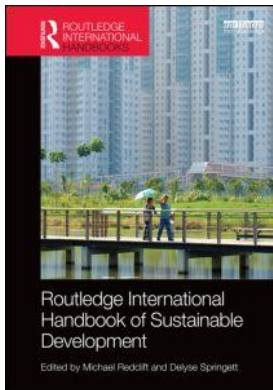
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6

EDUCATION FOR SUSTAINABLE DEVELOPMENT

Challenges of a critical pedagogy

Delyse Springett

Introduction

This chapter argues that education for sustainable development (ESD), to be effective and to assume the transformational role often ascribed to it, requires both a critical theorization and a critical pedagogy that empower learners to envision ‘a moral economy of social justice, citizenship and sustainability, based in social democracy’ (Huckle 1996:15; 2012). The urgency of the sustainability agenda requires a radical re-think of societal priorities, and commentaries and policies on the transition to sustainable development have frequently emphasized the central role that education must play in that paradigm shift.¹ Key stages in the history of education for sustainable development are overviewed here to seek out similar calls for a critical pedagogy, and to highlight some of the institutional impediments that have made this a problematic area of the curriculum at all levels. A significant recent initiative at institutional level is the United Nations Decade of Education for Sustainable Development (DESD 2005–2014). By the time the chapter is published, the first stage of the DESD will be at its close, to be followed by the Global Action Programme on Education for Sustainable Development (GAPESD). This provides a timely juncture for assessing the progress made in a crucial area of education and whether we are yet on the path to developing a transformational role for education that may make a difference.

From environmental education to education for sustainable development

The formalization of the concept of sustainable development that the World Commission on Environment and Development established in *Our Common Future* (WCED 1987) not only marked a watershed for the robust environmental discourse that had flourished since the ‘environmental crisis’ of the 1960s but deeply influenced the re-theorization of environmental education (EE) while introducing further contestation to that discourse. The foundations of environmental education may be traced back to Rousseau’s theories of education and his belief in the importance of the role of the environment in our lives, as propounded in *Emile: or, On Education* (trans. 1979). The Treatise considers how the basic human goodness that Rousseau believed in – *the natural man (sic)* – could be safeguarded from a corrupt society. In the late nineteenth century and the twentieth century, his educational theories and the normative questions they raised fed into the focus on Nature Study, Conservation Education and Outdoor

Education, from which emerged the environmental education movement that burgeoned in the 1960s and 1970s. A popular, vernacular, quasi-communal style of community schooling in ecology, green lifestyles and intentional frugality had also emerged in the 1950s and 1960s, linked to civil rights movements and the search for alternative life-styles, and culminating in such initiatives as Earth Day and the establishment of the Club of Rome.² These movements and the concerns they raised, along with publications such as Carson's *Silent Spring* (1962) and Ward's *Spaceship Earth* (1966), helped to jump-start the environmental education movement. By 1969, a definition of environmental education was provided in the first issue of *The Journal of Environmental Education*: 'Environmental education is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to solve these problems, and motivated to work toward their solution' (Stapp 1969).

Environmental education now received support from intergovernmental organizations, though not necessarily from the institutions that govern the delivery of formal education at all levels. The IUCN issued the first internationally accepted definition of environmental education:

the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man (*sic*), his culture and his biophysical surroundings. EE also entails practice in decision-making and self-formulation of a code of behaviour about issues concerning environmental quality.

(IUCN 1971)

In 1972, the United Nations Conference on the Human Environment (UNCHE) produced the Stockholm Declaration 'to inspire and guide the peoples of the world in the preservation and enhancement of the human environment', and established the International Environmental Education Programme coordinated by UNESCO and UNEP. The UNESCO-UNEP conference held in Belgrade in 1974 delivered the *Belgrade Charter* (UNESCO-UNEP 1975), based on the Stockholm Declaration, and set up international and regional meetings on environmental education that culminated in the International Intergovernmental Conference on Environmental Education, held in Tbilisi in 1977. The *Tbilisi Declaration* provided goals, aims, objectives and guiding principles that already signalled the need for a transformative education. The focus was on education that would:

- foster clear awareness of, and concern about, economic, social and political interdependence in urban and rural areas;
- provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment; and,
- create new patterns of behaviour of individuals, groups and society as a whole toward the environment (UNESCO-UNEP 1978: 3).

Three major perspectives on environmental education emerged (Lucas 1979):

- education *in* the environment (experiential education);
- education *about* the environment (providing information); and,
- education *for* the environment (critical and political education examining the origins of the environmental problematic and preparing learners for an active role as agents of change).

Clearly, the ideal goal would be for all three approaches to complement each other and be employed as parts of an overall educational strategy. However, it is 'education for the environment' that, ontologically and epistemologically, prepares the way for the transition to be made from 'environmental education' (and, frequently, a focus on science education as the basis for EE, since the 'problems' were often framed as scientific problems) to 'education for sustainable development' and the critical theorization promoted in this chapter. It highlights the fundamental change in the nature of education that ESD calls for and signals the changes to policy, curricula, pedagogy and institutional structures that are needed – a re-imagining of education (Corcoran 2009; Wals and Corcoran 2012) and a transformation that has proved both elusive and difficult over the years. Potentially, education for the environment/sustainable development is more openly ideological in its aims and approach and capable of exploring ideological perspectives in the discourse.

After *Our Common Future* (WCED 1987), many educators and authors adopted the rhetoric of 'Education for Sustainable Development' (ESD). However, just as the broader discourse contests the concept of 'sustainable development', with some favouring the different concept of 'sustainability', the educational discourse is challenged by those who would nominate 'Education for Sustainability' (EfS) or 'Sustainability Education' (SE) or 'Learning for Sustainability' (LfS) over 'Education for Sustainable Development'. More will be said about this later in the chapter. Some researchers still prefer to talk about 'environmental education', while confronting the challenges of sustainable development and sustainability, as notably demonstrated by the recent *International Handbook of Research on Environmental Education* (Stevenson et al. 2013).

A major outcome of the United Nations Conference on Environment and Development (UNCED 1992), which was based on the WCED outcomes, was Agenda 21, a blueprint for the future. Chapter 36 focuses on the role of education as a means of implementing the goals of Agenda 21, emphasizing that:

Education is critical for promoting sustainable development and improving the capacity of the people to address environment and development issues . . . It is critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making.

(UNCED 1992, Chapter 36: 2)

However, it was the NGO 'Alternative Treaty on Environmental Education for Sustainable Societies and Global Responsibility' (1992), presented at the Global Forum, the alternative Earth Summit, that provided a more critical and transformational set of principles. It promoted a strong and open values position to the debate, calling for profound institutional change that would challenge the dominant social paradigm. It called for inclusive and participatory education at all levels, delivered through programmes that are holistic and systemic in approach, that take an interdisciplinary or multi-disciplinary stance, and are critical in their theorization. Its comprehensive goals come close to Huckle's (2012) ideal of 'concrete utopianism' in education and include:³

- Environmental education, whether formal, non-formal or informal, should be grounded in *critical and innovative thinking* in any place or time, *promoting the transformation and construction of society*.
- Environmental education is both individual and collective. It aims to develop *local and global citizenship with respect for self-determination and the sovereignty of nations*.

- Environmental education is not neutral but *is values based*. It is *an act for social transformation*.
- Environmental education must stimulate *solidarity, equality, and respect for human rights involving democratic strategies and an open climate of cultural interchange*.
- Environmental education should treat critical global issues, *their causes and interrelationships* in a systemic approach and within their social and historical contexts. Fundamental issues in relation to development and the environment, such as population, health, peace, human rights, democracy, hunger, degradation of flora and fauna, should be perceived in this manner. (Emphasis added).

Since UNCED, much energy has gone into promoting, practising and critiquing education for sustainable development, with continuing involvement from UNESCO, UNEP and the IUCN's Commission on Education and Communication (CEC). Yet relatively little has occurred that could convince us that the principles of the Alternative Treaty on Environmental Education and the transformative curriculum it promotes have been taken to heart.

The United Nations Decade of Education for Sustainable Development

Over the last ten years, some leadership has again been provided by the United Nations with the Decade of Education for Sustainable Development. The UN acknowledged that nurturing education for sustainable development in a neoliberal climate presented a challenge that required institutional change. Consequently, governments were to be encouraged to consider measures to implement the goals of the DESD in their education systems and strategies and even in their national plans. The aim was to integrate values, activities and principles that were inherently linked to sustainable development into all forms of education and learning, helping to bring about changes in attitudes, behaviours and values to ensure a more sustainable future in social, environmental and economic terms. Notably, emphasis is placed here, as so often, on *individual responsibility* and changes in *individual values and behaviour* rather than on structural change at institutional level. This is a not uncommon feature of the broader discourse on sustainable development, where it seems easier to focus on changing the individual (who clearly does have a key role to play in bringing about change) rather than on the need for institutional change. The transformation of individual values and behaviour is emphasized rather than the ability of that individual to understand issues around power or to achieve the empowerment and progressive agency to confront these: to *become a transformer*. Furthermore, the DESD goals are based upon the UNDP's 'three pillars of sustainable development', a phrase that precisely echoes the 'three pillars of sustainable development' or 'triple bottom line' that have been central to the rhetoric of business groups such as the World Business Council for Sustainable Development from the time of UNCED, and a signal, possibly, that business rhetoric is proving pervasive in the educational as well as other areas of the sustainable development discourse (Beder 1997; Beder et al. 2009; Springett 2009; 2013). Yet, by 2005, when the DESD was launched, one conception of sustainability (and, it is argued here, sustainable development) that was already current was the 'Prism of Sustainability' (Spangenberg 1995) embracing *four*, not three, imperatives: the environmental, economic, social, and, importantly, the *institutional* imperative. While UN statements about the DESD do underline that 'the concept of sustainable development touches upon all aspects of the social and institutional fabric' (UNEP 2007: 1), it appears that the terms of the DESD, while acknowledging the need for institutional *involvement*, had not pinpointed the 'institutional imperative' as such – the need for fundamental change at all levels of governance, and something that the 'three pillars' or 'triple bottom line' fail (deliberately?) to capture. Tellingly, when Huckle (2012) conducted an analysis of four major publications linked

to the UNDESD for key words and phrases that would indicate that the authors had an understanding of issues that are central to a critical pedagogy for ESD – ‘political economy’, ‘politics’, ‘capitalism’, ‘socialism’ and ‘critical pedagogy’ – he discovered that ‘politics’ featured only in two of these and that ‘political economy’, ‘capitalism’, ‘socialism’ and ‘critical pedagogy’ appeared in none of them. Even when ‘a critical perspective’ is advocated as key to ESD, it does not mean that such structural and political issues are addressed.

Nevertheless, the basic vision of the DESD reflected some of the principles that the Alternative Treaty (1992) had outlined. The goal was that education, in formal, non-formal and informal settings, should provide an effective vector to bring about the changes in values, attitudes and lifestyles to ensure a sustainable future and the evolution of just societies. This indicated a role for national governments in re-thinking and re-orienting education and skills training to make the learning process locally relevant to real-life applications while engendering a broad concern for sustainability and sustainable development. The objectives to achieve these results aimed:

- to facilitate networking, linkages, exchange and interaction among stakeholders in ESD;
- to foster an increased quality of teaching and learning in education for sustainable development;
- to help countries make progress towards and attain the Millennium Development Goals through ESD efforts; and,
- to provide countries with new opportunities to incorporate ESD into education reform efforts (UNESCO 2004).

Education for sustainable development was to be interdisciplinary and holistic and embedded across the curriculum; explicitly driven by values and with these values openly examined, debated and applied; it was to be built around critical thinking and problem-solving, helping to build confidence in facing the dilemmas and challenges of sustainable development; it would be multi-method and participatory, applying different pedagogies and fostering cooperative learning and decision-making between teachers and learners, while being locally relevant and grounded in local languages and culture (UNESCO 2004: 6; UNESCO 2007; 2009a).

The transformational role of education for sustainable development

From the start, early pioneers of education for the environment had taken into account the ontological and epistemological challenges implicit in the development and delivery of EE if it was to foster real change, as well as the pedagogical approaches most likely to empower learners. It was clear that EE challenged the dominant social paradigm and called for social transformation and the transformation of education – which largely explains why it has proved so difficult to find a permanent niche for EE in the standard curricula of schools and institutions of higher education. While programmes that promote education *in* and *about* the environment have been more easily accommodated into the standard curriculum, education *for* the environment has found it harder to achieve a footing: the critical perspective it calls for is overtly political, encouraging learners to understand and critique the way the world works. At its most powerful, education *for* the environment – and, consequently, education *for* sustainable development – calls for the transformation of society and of educational systems that have become increasingly managerial and commercial in their goals and approaches. Such transformative goals may be dismissed as ‘utopianism’, but Huckle (2012: 43) perceives the goal as ‘concrete utopianism’ requiring greater ‘realism’ in education about the realities of how the world works.

Such a transformational role represents a serious challenge to the overall educational systems of countries. The exposure of ideology that education for sustainability may provide constitutes what Maher (1985) terms ‘dangerous knowledge’ that makes it difficult to fit comfortably in the formal curriculum. The formal education curriculum plays a key role in sustaining and reinforcing social hegemony, leading to the acceptance and reproduction of the ideology of the dominant social paradigm (see Apple 1979). It does this through the overt and the hidden curricula, perpetuating utilitarian attitudes toward nature while maintaining the class and societal division that serves the values and ideology of dominant social groups (see, for example, Trainer 1990; Orr 1992; 1994; Fien 1993; O’Connor 1998). Trainer (1990) described the curricula of schools and colleges, in their overt and hidden manifestations, as reproducing the socially and ecologically unsustainable values and practices of the industrial affluent society – promoting the desirability of economic growth and a competitive economy, the importance of individualism and competitive advantage, and market determination of economic and social priorities. O’Connor (1998: 149) similarly notes that the education system ‘performs most activities that are necessary for the production of labour power’. Consequently, the emancipatory and change-agent roles of education for sustainable development are problematic for the ‘reproductive’ function education has assumed, alerting learners to the potentially hegemonic role of education and developing the skills to interrogate existing knowledge (Sultana 1989).

An important aspect of the perceived ‘problem’ is that a critical pedagogy is openly ideological, which is not to say that the intention is to co-opt learners to a particular perspective, although detractors might claim this. The goals of a critical pedagogy are emancipatory, intended to foster a habit of critical inquiry that *prevents* such capture. The goal is to involve learners in thinking through both personal and broader societal issues and to ‘hold a mirror to the world and show it as it is and as it has produced and shaped its own nature’ (O’Connor 1998: 52) – again, what Huckle (2012) refers to as ‘realism’ in education. This requires that we listen to voices that are seldom empowered and hear perspectives on sustainability and sustainable development that do not solely reflect the views of ‘management’ at whatever level (Springett 2006a; 2006b). Such education is openly ‘political’ in intent: it does not claim the supposed ‘neutrality’ of the orthodox curriculum that helps to reinforce societal hegemony in covert and purportedly neutral and unbiased ways (Apple 1979; Fien 1993; Huckle 1996; O’Connor 1998; Springett 2009), nor perpetuate a ‘sanitized’ picture of the world (Willmott 1994).

Contesting the concept of sustainable development

There remains the division that has arisen between those who would advocate ‘education for sustainable development’ and those who prefer to speak of ‘education for sustainability’. Chapter 1 (p. 15f) has overviewed the ‘contradictions’ that surround the concept of sustainable development. However, this contestation and the epistemological contradictions it raises may also provide a learning advantage. A key requirement of any course on sustainability/sustainable development in whatever discipline will be to problematize the concepts of ‘sustainable development’ and ‘sustainability’, to unpick the contested ways in which they are framed and the reasons for this and to expose hegemony. It is an essential part of a critical approach to the discourse on sustainable development and sustainability and an example of how a critical theorization shapes content. It is a different route from courses that alert learners to ‘issues’ and ‘solutions’ without a grounding in the genealogy and politics of those ‘symptoms’ of the ecological and social problematic. The sustainability/sustainable development discourse itself provides a powerful way of understanding the role asymmetric power relations play in determining which

constructions become legitimated, and the fundamental relevance of the discourse to students' own lives encourages their engagement in the debate.

Institutional impediments to education for sustainable development

In terms of what has happened to education at the institutional level over the last decades, Beder et al. (2009) maintain that many of the difficulties that have been encountered in transforming education arise from changes in its provision and delivery at all levels and from the increasing influence that neoliberal politics and the corporate world have on the nature of education. These changes start at schools level. It is not difficult to find 'environmental' components of the curriculum in schools – as noted, nature study and outdoor education have long featured on the curriculum, and the 1990s saw the rising popularity of 'whole-school' approaches through such programmes as 'eco-schools'. Against this, Beder et al. reveal the ways and means by which corporates have attempted to capture childhood, creating 'hyper-consumers' of their products and services and, in the longer term, submissive employees and passive citizens, more engaged with 'what they have' than 'who they are'. The formal education system itself has played a part in the transformation of *what education is for* since government funding, or the lack of it, renders schools vulnerable to the pressure of business selling its products to children via schools through sponsorships, competitions, communication technologies and classroom materials that help to grow brand loyalty. More broadly, the focus on 'consumer choice' has seen increases in the privatization of education and the provision of charter schools – often with corporate funding and involvement. Teachers feel besieged by the demands of time-consuming new testing regimes, lack of control over what is taught, additional 'welfare' responsibilities for their students and uncertainty about their own futures where tenure is threatened and unionization is discouraged. It takes little imagination to grasp that education for sustainable development is likely to struggle under these conditions. Corporate-sponsored classroom materials provide a distorted view of environmental, health and social issues (Beder et al. 2009; Huckle 2013). Schools have been driven to shift the goals of education from 'quality' to 'efficiency', imperilling the goals of education for sustainable development. As Beder et al. underline, business coalitions are powerful, capable of influencing government policy to transform schools into competing business enterprises and of engineering a narrowing of the curriculum to focus on numeracy and literacy, computer skills and a business-friendly view of history and society.

Despair about the changes taking place in the education system reaches beyond the schools. Concern about ideological premises that increasingly dominate the tertiary system of education has been vociferously expressed. The tertiary education sector, as 'conscience and critic' of society, might have been expected to take the leadership role in the discourse about sustainability and sustainable development and to embrace it as a moral responsibility: it is here that our teachers and leaders are prepared for their future roles. However, the increasingly reductionist turn the agenda of Higher Education has taken in recent years is characterized by competition and market-driven values that mimic the corporate ethos (Collini 2003; Parks 2013) rather than a collaborative culture, resulting in the commercialization and commodification of Higher Education. Slaughter and Rhoades (2004), reviewing changes in American universities, have identified this as 'academic capitalism'; while Anderson (2014: 39) notes that, in the UK, 'universities risk reduction to so many sales outlets for customers in need of livery for the market'. The UK report of the Higher Education Funding Council for England (HEFCE 2008), and the 'Browne Report' on Higher Education and Student Finance (2010), underlined the increasing bureaucratic control of higher education seen as a 'market' in which consumer demand (not least the requirements of business) will be sovereign (Collini 2010; McKibbin 2010). These are not trends that are likely

to encourage either a critical perspective or a focus on sustainability. Schools and Higher Education institutions are in danger of becoming 'edu-businesses'.

There have been glimmers of hope. As early as 1990, initiatives were instigated to form international alliances of universities with other groups to promote commitment to a sustainability ethic. In the USA, *The Forum for University Leaders for a Sustainable Future* (ULSF 1990) underlined the key role of the university in promoting the transition to sustainable development. *The Talloires Declaration* in 1994 called for changes to curricula, teaching and learning and encouraged signatories to commit to programmes for environmentally responsible citizenship, teaching environmental literacy and developing interdisciplinary approaches to curricula, research initiatives, operations and outreach activities. This inspired the Conference of European Rectors of European Universities that resulted in the COPERNICUS programme and *The University Charter for Sustainable Development* (CRE-COPERNICUS 1994) that also emphasized the importance of embedding sustainable development in the curricula, teaching and learning at university level. COPERNICUS-CAMPUS, the European University network for sustainable development, was tasked with developing Guidelines for the incorporation of sustainable development into the European Higher Education Area. This was followed in 2009 by UNESCO's *Bonn Declaration* (UNESCO 2009b) to strengthen knowledge about ESD through the teaching, research and community engagement of universities. Preparing for the DESD, UNESCO also envisioned Higher Education as having a key role to play in the transition to sustainability. Nevertheless, universities may be viewed as having largely ceded leadership in the sustainable development discourse to powerful business organizations. The corporate world has not suffered from the inertia that can characterize the university; rather, it has sought to shape, if not appropriate, the narrative of sustainable development, at least since UNCED (Springett 2013).

Kearins and Springett (2001), Springett and Kearins (2005) and Jones et al. (2009) summarize some of the principal inhibitors that have prevented universities and other establishments of higher education from taking the lead. These include staff concern for academic freedom and not wanting sustainable development 'imposed' on them; discomfort with interdisciplinary teaching; their own lack of knowledge in the field of sustainability; and concern that the ethos of the institution does not favour successful integration of sustainability across the teaching, learning and research programmes of the university. The last point is, possibly, the key inhibitor on account of the ideological conflict between the goals of education for sustainable development and institutions that have become increasingly commercialized and market-oriented. There has been a reaction against Higher Education's abdication of responsibility, its lack of action in the face of increasing environmental, social and economic dilemmas and its failure to grasp the institutional imperative of sustainable development (Corcoran and Wals, 2004; Springett 2009). Teaching and research programmes have emerged that focus on multiple aspects of sustainable development, along with a re-thinking of how the institution is managed. In addition to the traditional academic league tables, we now find universities, like companies, competing for places on 'Green League' tables in order to demonstrate their commitments to sustainability. While this entails greater attention to management functions – 'green housekeeping' that covers indisputably essential initiatives – it falls well short of sustainable development. Some universities take this further and make the claim to be 'sustainable universities' in terms of curricula, research programmes and corporate management. However, the critique of the eroding role of the university suggests that a more fundamental transformation is required. The very purpose of the institution needs to be revisited if its role in the shift to sustainability is to be one of leadership. Jones (2012) argues for a new metaphor of a 'restorative' or 'biophilic' university (p164), calling for a systemic, transitional change to 'sustaining universities' as facilitators of the shift to sustainability, rather than 'sustainable' universities competing for prowess on green league tables.

At NGO level, there has been a fierce struggle to ensure that Higher Education plays its part in the shift to sustainability. At the UN Conference on Sustainable Development – Rio+20 – (UNCSD 2012) the alternative Peoples' Sustainability Treaties again provided an example of deliberative democracy in action. They evolved through a consultative process with hundreds of civil society organizations that converged at Rio+20 to launch their Manifesto on the final day of the summit, declaring that another world is possible after Rio+20 and pledging their commitment to a transition toward increasingly sustainable futures on earth. The *Peoples' Sustainability Treaty on Higher Education Towards Sustainable Development* (2012) again emphasizes the need to transform higher education if it is to foster the principles of sustainable development.

The discussion brings into question the matter of who is to lead the turn to sustainable development in the future. A key goal of the DESD has been to 'foster an increased quality of teaching and learning in education for sustainable development', pinpointing the fact that many of our teachers and academics have had little education for sustainable development themselves in their formal education and training and have had to become pioneers in the area – to take in hand their own professional self-development for teaching environmental education or education for sustainable development. They have generally been taught and trained within tight disciplinary traditions. Sustainability, however, is a cross-disciplinary concept (Becker et al. 1997; Becker 1999), and education for sustainable development embraces 'aesthetic, cultural, ecological, economic, environmental, ethical, philosophical, political, scientific, social, spiritual and technological' dimensions, calling for 'permeability' between disciplinary boundaries (Selby 2006: 7). UNESCO (2004) also characterized education for sustainable development as being interdisciplinary, cross-curricular and holistic, values-driven and built around critical thinking and problem solving. However, this ideal approach to education for sustainable development – or any area of education – is professionally and practically demanding where few educators have been taught or trained in such a range of theoretical, pedagogical or methodological approaches.

Challenges of a critical pedagogy

A further challenge for teachers arises from the advocacy for a critical theorization of the sustainable development curriculum, posing the question of how educators are to gain preparation for teaching critical perspectives if that perspective is generally lacking from their own professional development. There are political difficulties and possible career consequences for educators who promote a critical agenda or who focus on education for sustainable development or both (Springett and Kearins 2001). Academics are constrained to seek publication in top tier journals in order to strengthen their academic assessments and to compete for promotion and research funding, so that forays outside traditional disciplinary boundaries represent risk. It is not surprising that, in the business studies curriculum, for example, where the ideological struggle between the legitimacy of the traditional curriculum and the challenges that sustainable development poses are most obvious, there has tended to be a focus on the rhetoric of eco-modernism and incremental change and the 'gains' these bring to business. The focus has not infrequently been on the 'management' of the agenda of sustainable development (Luke 1999; Springett 2006b) rather than a radical perspective on the need for fundamental systemic change to modes of production and consumption.

Educating the decision-makers

Another important issue is the level of education for sustainable development that has been available to the leaders who make key decisions on our behalf and the managers who provide

leadership at corporate level: to what extent is sustainable development embedded in the learning of those responsible for governance at all levels? Martin and Jucker (2005) question the education of future generations of professionals and note the prevalence of leaders who lack the qualities that would promote sustainable development. Huckle (1996) maintains that education for sustainable development focuses on the ethics and politics of sustainability and *unsustainability* to engage in 'shared reflection and action on forms of political economy that would enable us to live sustainably with one another and the rest of nature' (ibid.: xiv). Clearly, the capacity for such reflection and action on the part of political and business leaders urgently needs to be nurtured through the manner in which they are educated. Unsurprisingly, then, one part of the curriculum of higher education that has received considerable critical comment is the business studies curriculum where many of our future decision-makers receive their education. As noted, this is an area of the curriculum where the ideological struggle between the goals of sustainable development and the rationality of the capitalist paradigm of production and consumption collide (Springett 2005; 2009). The United Nations Principles for Responsible Management Education (PRME) (2007) – ostensibly designed to promote sustainable development in business schools – promulgates six 'Principles': Purpose; Values; Method; Research; Partnership and Dialogue. However, the rhetoric fails to suggest that the ideology of business education or of business *per se* needs to change if the goals of sustainable development are to be met.

There is some evidence that business managers themselves regret the lack of education for sustainable development in their own initial education and training (Springett 2006c). Moreover, education for sustainable development does not cease at the end of formal education (and not all managers and leaders receive tertiary education). Education for sustainable development needs to be available for managers already in the workplace and at all levels of seniority. This provides an important opportunity; and, in fact, one aspect of education for sustainability that has gone from strength to strength over the past two decades has been the focus on 'executive education' for sustainable development, mostly of leaders already functioning in the corporate world, and largely delivered as post-formal educational programmes (see, for example, Roome 2005; Wheeler et al. 2005). Luke, in this volume (Chapter 21), draws attention to the Master of Science Program in Sustainability Management offered to graduate students at Columbia University.

Is ESD addressing the real questions of sustainable development?

The potential scope of a curriculum for education for sustainable development is demonstrated by the breadth of topics covered in this Handbook – and represents one of its daunting aspects. Jones et al. (2009) reveal the interdisciplinary potential and benefits of infusing sustainability concepts, issues and case studies into all areas of learning and teaching, as well as the student motivation, teacher satisfaction and opportunities for innovative and active learning that this provides. So the fact that education for sustainable development may not have had the level of institutional support that its crucial role merits does not mean that nothing has happened in the area, but it does mean that the task of providing education for sustainable development for all peoples of all ages has been harder. It may also have resulted, in some cases, in a more strenuous effort to ground SD in curricula at all levels, and has certainly fuelled a good deal of cross-curriculum research (see Stevenson et al. 2013).

However, this leads to the crucial question that remains: are the curricula and programmes currently operating addressing the real and substantial questions of sustainable development? Are they 'realistic' (Huckle 2012)? We might start by considering accounts of the qualities that

characterize the ‘sustainability literate citizen’ – the person educated to understand the causes and problems of unsustainable development and to develop the personal agency to challenge the status quo. This seems essential considering the emphasis placed on personal responsibility, values and behaviour change in the shift to sustainable development; and crucial in view of the changes in subjectivity the shift to sustainability will both rely upon and engender in the learner. A UNEP-UK document (Sterling and EDET 1992) was one of the first to take up this challenge and focuses on eight qualities that we might strive to nurture in all learners:

- a sense of responsibility to the environment, to other people and to the future of both;
- the will, knowledge and skills to translate this responsibility into action in both personal and public life;
- the ability to respond positively to change and uncertainty;
- a capacity to see the links between individual and group actions, external events, and other factors;
- an interdisciplinary and holistic outlook;
- a healthy scepticism alongside the ability and freedom to be creative;
- a balance of rationality with feeling and intellect with intuition; and
- a sense of self-worth combined with a respect for other individuals and cultures (Sterling 1996: 35).

A critical pedagogy would see ‘a healthy scepticism’ strengthened to the development of a critical capacity and the agency to identify structural irrationalities and to seek change at institutional level. Huckle (1996), for one, prioritizes the learner outcome of gaining an understanding of the contemporary politics of sustainability. He argues (2012) that the learner needs to become more alert to issues of inequality and social class; learning needs to be more firmly anchored in the realities of the dominant forms of unsustainable development and underdevelopment that shape the contemporary world; and more attention should be given to the struggles of the workers and citizens to introduce more sustainable alternatives, all of this calling for a critical pedagogy. To this we might add development of a capacity for self-reflexivity and the ability to evaluate the course, its content and delivery as well as the learner’s own contribution to the learning nexus so that the course becomes self-reflexive for the teacher as well as the learner (Springett 2009). Such participatory methods, valuing students’ input, provide an approach to ESD that may deliver education that is genuinely transformational.

Post-DESD expectations for education for sustainable development

So what can we expect of education for sustainable development post-2014? The major outcome of the DESD, as noted, is the plan for a Global Action Programme on Education for Sustainable Development (GAPESD), with the overarching goal ‘to generate and scale-up action in all levels and areas of education and learning in order to accelerate progress towards sustainable development’ (United Nations 2012; UNESCO 2013).

The goals comprise:

- advancing policy;
- transforming learning and training environments;
- building capacity of educators and trainers;
- empowering and mobilizing youth;
- accelerating sustainable solutions at the local level.

The scope of the Global Action Programme and the international involvement in preparing its goals appear impressive. However, there are questions about its implementation: will structural and institutional impediments curtail its effectiveness? Will the GAPESD itself represent a form of institutional control over education for sustainable development, determining the social politics of how the ESD agenda is set? Robottom (2013: 161), focusing on teacher professional development, notes that the DESD 'is marked by vigorous attempts to impose centrally developed curriculum packages designed for universal implementation'.

What would we hope for from UNESCO's major input into ESD? Will the Global Action Programme confront the 'big issues' of sustainability and unsustainability, the interconnectedness of the institutional, environmental, social and economic imperatives highlighted in Chapter 1? We might hope that the curricula will address the tough reality of unsustainability and encourage reflection on fundamental questions about the capitalist economy of consumerism and its impact on our ways of being, asking, for example: 'How Much is Enough?' (Durning 1992; Skidelsky and Skidelsky 2012), and 'To Have or To Be?' (Fromm 1976) – that is, the eternal philosophical question: 'How to live?' Learners need to be encouraged to envision what a sustainable political economy would look like if it were both socially and economically sustainable, meeting the needs of all of the world's people while conserving the means and conditions of production – in other words, as noted earlier, to assume a transformational role and to envision the moral economy of social justice, citizenship and sustainability, based in social democracy (Huckle 1996). An examination of the political abuse of language would be important – the semiotic conquest of the language and agenda of 'sustainable development' that has led to the appropriation of the term to suit corporate or political interests. We might look for more emphasis on community-led and grass-roots initiatives, as exemplified by the Alternative Treaties, to counterweigh some of the constraints that the formal sector of education currently suffers from and promotes.

In these post-Gutenberg times, the digital revolution, for all its manifold drawbacks, offers opportunities for a 'republic' of sustainable development educators and learners to emerge, free from some of the current constraints on ESD and able to broaden the conversation to include much wider and more diverse audiences – a movement perhaps akin to that of the popular, vernacular movements of the 1950s and 1960s that fed into the formalization of environmental education. It follows that different ontological, epistemological and pedagogical perspectives would be rife, along with matters of quality control of content and delivery, of measurement, assessment and evaluation – of 'control' *per se*. The scope for a more interactive and critical curriculum, drawing on some of the themes cited in this chapter and available to a wide community, is considerable. Will it emerge to drive the much-needed revolution in education for sustainable development? Importantly, can the DESD and its outcomes provide the necessary impetus?

Notes

- 1 This includes outputs from all of the major UN conferences on environment, development and sustainable development since 1972 (UNCHE 1972; UNCED 1992; UNWSSD 2002; UNCSD 2012).
- 2 Buckminster Fuller's *World Game*, 1961, Stewart Brand's *The Whole Earth Catalogue*, 1968–1972, and Paolo Soleri's *arcologies* are other possible precursors of the formal EE movement.
- 3 These can be accessed in full at: <http://habitat.igc.org/treaties/at-05.htm>.

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