CHAPTER 1

Introducing Education for Sustainable Development

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We live in a time of rapid change. In the last 20 years, the advances in science and technology and the impact on how we live have been profound. The pace of developments particularly in areas such as biomedicine, electronic communications and data storage have been little less than spectacular. The technological tools that we have developed now allow us to not only explore adjacent planets but also view horizons that span from the edge of the known universe to subatomic space. Never before in our history have we understood so much about ourselves, or the physical world around us, and never before have we had the means of communicating this understanding, as well as asking intriguing questions concerning that which we still do not understand, to such a wide and literate audience. Progress in health technologies has presented us with such longevity that it is easy to forget that average life expectancy in the UK is 30 years longer than it was merely a 100 years ago (Kirby 2015). As a global population we have never been healthier or better educated and in the so-called high-income countries, we have never before enjoyed higher living standards than now. It would not perhaps be presumptuous to suggest that the late twentieth and early twenty-first centuries will most likely be recorded in history as the period of 'Technological Revolution'.

However, of course this rapid change has come at a considerable cost expressed through the hugely negative impacts on both the physical and the living environments. The relentless and rapid decline in

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the health of the Planet is plotted each year by the World Wide Fund for Nature's (WWF) State of the Planet Report and it is this deterioration in the physical environment, compounded by increasing social and economic disparities within populations that makes the future look increasingly bleak. It seems strangely ironic that at a time when we can look to the distant edge of the universe, that our own future horizons have become so reduced. We simply cannot predict beyond the short term. So rapid and uncertain is the direction of change that we struggle to think of what the world may look like in 20 years, let alone a hundred. Optimists see the dynamic and responsive technological vitality of the free market to be the best promise of an effective remedy to the problems that it has created, through the mitigation of our impact on the environment through the adoption of more benign technologies and efficient end use. Others see the very dynamism of the modern economy as representing a dangerous underlying conceit in that we can infinitely manipulate our environment.

This uncertainty concerning the future, combined with equivocal views on the future paths we may take, has deep implications in education, for the simple reason that we are teaching the people who will be living in it. However, an undoubted truism is that current social, economic and environmental trends are not sustainable. Therefore, education has a key role in promoting an understanding of issues relating sustainability and resilience.

Box 1.1: Pause for Reflection.

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair.

In this quote from a Tale of Two Cities, Charles Dickens famously addressed the paradoxical characteristics of periods of revolution. Although addressing the political and social upheavals of the French Revolution, how far can we apply these sentiments the present? To what degree do these words apply to education settings today?

Sustainability and Education

A cursory glance through the literature relating to sustainability and education will quickly produce a range of seemingly interchangeable phrases such as Education for Sustainable Development (ESD), Education for Sustainability (EfS) Sustainability Education (SE) and even Sustainable Education. In this book, we have chosen to use the most widely used and probably best-recognised term, namely ESD.

The concept of ESD is an intriguing one, for while there is a general consensus of its importance as a guiding principle, there seems little agreement on a precise definition of the term (Holmberg and Sandbrook 1992; Trzyna 1995; Scott 2009). However, there is of course a significant difference between education *about* sustainability and education *for* sustainability. The first concerns the development of awareness and may be essentially theoretical in nature. The second implies the use of education to achieve and enact applied outcomes in both behaviour and practice.

The contentious nature of the precise meaning of ESD and the recognised contradiction of development (implying growth) and sustainability (implying stability) has meant that it has become expedient to replace precise definition with broader characterisations and this has resulted in its application to a wide range of initiatives and contexts, including economic and environmental. It is unlikely that there will be any clear consensus as to what constitutes ESD in the near future, although there might be greater agreement about the general characteristics. Sustainable development is generally thought to have three components: environment, society and economy and these are all seen as intrinsically linked. Therefore, the concept of sustainability rejects the idea that economic well-being needs to be necessarily injurious to both the social and natural environment. Indeed, sustainability promotes a future in which environmental, societal and economic considerations are equally considered.

If this is the case, it is increasingly apparent that mere knowledge and conceptual understanding of the environment and its problems will not necessarily effect the required behavioural change (Sterling 2001). Therefore, ESD is increasingly seen as a transformative learning approach, an adaptive process that not only equips students with new knowledge but also promotes new ways of thinking. It also places onus on the need to promote learning skills that are resilient in the sense that they are future

proofed endorsing Alvin Toffler's famous quote 'The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn' (Toffler 1970, p.376).

Education for Sustainable Development and Further Education in Context

In 2002, the UN General Assembly famously adopted a resolution that called for a Decade of Education for Sustainable Development (DESD) (2005–2014). The often referred to aims of the DESD was 'to integrate the values inherent in sustainable development into all aspects of learning to encourage changes in behaviour that allow for a more sustainable and just society for all' (UNESCO 2005a). It suggested that ESD should be a key instrument of learning in all forms of education and, importantly in the context of this book, that it should be applied to all stages of education and to all ages. There is significant emphasis in the original documentation on different geographical scales of involvement and the finest definition of these is that of community. Schools undoubtedly serve their communities relative to the provision for children and young people up to 16 years, but it is arguably the FE colleges that have a wider, more inclusive, community approach. The central position of colleges relative to the DESD was also emphasised by the identified importance of vocational training as well as building capacity for the development of skills and training (UNESCO 2005a) all of which suggest that the FE sector was ideally positioned to deliver many of these goals.

How the DESD was to be implemented is also of interest for the focus was on:

- promoting and improving quality education;
- reorienting educational programmes to include a clear focus on the development of knowledge, skills, perspectives and values;
- building public understanding and awareness for the achievement of the goals of sustainable development requires widespread community education;
- providing practical training. All sectors of the workforce can contribute to local, regional and national sustainability. Business and industry are, thus, key sites for ongoing vocational and professional training, so that all sectors of the workforce can have the knowledge and skills necessary to make decisions and perform their work in a sustainable manner (UNESCO 2005b).

The emphases on community education, skills, knowledge and training would appear to readily place the further education (FE) in a position to make a significant contribution.

Over the same period at the national level there were significant policy developments that also encouraged colleges to promote ESD. The Learning and Skills Council (LSC), the UK Government agency responsible for planning and funding post-compulsory education (excepting higher education) in England, published in 2005 their 'Strategy for Sustainable Development' within which a key milestone was that by 2010 FE colleges 'will embed SD skills in education and training programmes so that all learners are able to acquire these skills' and furthermore argued that 'today's problems cannot be solved if we still think the way we thought when we created them'. This positioned the FE sector at the forefront of developments in ESD and set challenging and highly progressive sets of targets and ideals (LSC 2005).

Of course, both the DESD and the LSC have come and gone. Many of the early UNESCO statements are in hindsight, progressive and transformative and yet recent reviews of its relative worth have been critical in that the DESD has attracted criticism for not sufficiently challenging neo-liberalism and lacking a more political and radical dimension (Huckle and Wals 2015). It would be tempting to level similar criticism at the realisation of the LSC Strategy in relation to many of its more progressive components; however, that would be to underestimate the significant and easily overlooked progress that has been made. From a standing start, the experience of many in the FE sector was that the sustainability agenda was and remains significant and that it not only changed the curriculum but also facilitated adoption of progressive and in some cases genuinely transforming educational approaches.

Why We Wrote This Book

Perhaps the best way to explain why we thought this book would be an important addition to the extant literature in ESD is by telling a simple, but true, anecdote.

Several years ago, we were both involved with a regional FE college; one of us started the co-operative inquiry research project which led to many of the chapters in the book and the other led a Master's level module in ESD for a number of the college staff.

On the first evening a group of about five participants came up and one said, 'You're not going to like us, we're all from the Motor Engineering Department, so we'll be giving you a hard time.' They were only half right. Each week they did provide a counterpoint to the ideas we were putting forward, they would challenge some of the central concepts of sustainability and they were throughout the module a source of powerful yet engaged criticism. Far from dislike, their humour, blunt cynicism but willingness to discuss, actually made the module genuinely far more stimulating and exciting.

In a sense, this Master's Module was analogous to the sector as a whole as it demonstrated the distinctive and powerful role that FE colleges have in the advancement of ESD through their unique position relative to local business, industrial and service sectors and equally importantly, the wider social community. As a result, colleges act as genuine interfaces between the theoretical and academic and the practical and applied, both within and beyond the institution.

They are best placed to influence and to enact sustainability initiatives within the wider community and to evaluate their effectiveness and value. Their close working proximity to local industry and social services may allow a far more critical, challenging yet practically productive contribution to the sustainability agenda.

One evening towards the end of the module, the group was asked to review how far issues of sustainability had been embedded into their own areas of work. For those teaching in the Arts and Humanities and for those involved in more service industry training, the responses were a little underwhelming. However, the motor engineers talked lucidly about how their industry had been through nothing short of a revolution and that as a result they were required to teach about reducing emissions, clean burn technologies, hybrid engines and so on. Of course, given the diverse discourse and interpretations around the concepts of sustainability, some may regard these developments in the training of those entering an industry that has such a profoundly destructive impact on the environment as little more than, at best, a reluctant response to government regulation and, at worse, little more than a marketing deception. However, the point here is that it engaged those lecturers in thinking differently, in developing new teaching resources and as such gave the topic legitimacy.

This story illustrates that so much has been done in the sector that perhaps has gone unreported and therefore unrecognised. Certainly, any search through publications on ESD in mainstream education settings almost inevitably provides a review of initiatives and research in schools and universities and yet initiatives in FE seem to be significantly less well represented. It is difficult to understand why this is the case given past and present contexts.

In 2002, the UK Government famously described FE as 'the forgotten sector in education' (DfES 2002, p.10). It seems that in the intervening years little has changed. Throughout the DESD much went on in the sector and there have been genuinely effective projects and strategies, yet curiously much of this excellent work and the insights that it has provided have gone unreported. This book will at least review and report the nature of some of these developments, as well as the experiences, difficulties and wider issues that practitioners have experienced. It is an attempt to emphasise some of the excellent work carried out and how this 'forgotten sector' has made a significant contribution not only to the debate but also to the implementation of ESD in a diverse range of settings.

The Structure of the Book

We have divided the book into sections, each with a distinct theme and we have used the metaphor of growth to hopefully illustrate distinct nature of concepts and practical developments. We begin by providing a specific and detailed example of institutional change, including infrastructural, staff development and the embedding of ESD in the taught curriculum. Section 2, Developing Our Practice, explores ideas around resources and assessment. Section 3, Sowing Seeds and Nurturing Growth, provides examples of different teaching approaches that provide alternatives to transmissive models to wider and more inclusive action learning approaches. This section also considers transformative learning and the challenge and contribution of complexity theory to and in FE settings. Section 4, Respecting Our Roots whilst Developing New Branches, considers the challenges faced in the rapidly changing nature of FE, providing a mix of chapters both practical and theoretical. The final section, Section 5, Moving On and Finding New Pastures, looks to the future in terms of widening the role of the FE sector still further by looking at its role in social inclusion and its potential contribution to the Sustainable Development Goals (SDGs).

Teaching Education for Sustainable Development in Further Education Settings

Throughout the UN DESD, there have been a great number of pronouncements and publications that have tried to identify ways to educate for a sustainable future. Many of these have dealt with the problems of definitions and issues such as how to promote sustainable development and the increasingly urgent reasons as to why we should do so. Yet given the imperative nature of the subject material rarely have such publications

had much of an impact. One could liken it to being on board a sinking ship and being given an emergency literature pack including excellent works on the definition of the term 'sinking' and others on why the ship is going down (including some that deny it), whose fault it is, the predicted timings for the bulkheads collapsing and some summative documentation on 'lessons learnt'. Nowhere is there any advice on the actual actions that you need to take to stop the ship sinking! Hopefully, this book will provide you with some stimulating examples of developments, achievements and practice that will in turn inspire you to take action.

We hope that through the case examples and the theory pieces, we have provided a useful blueprint to help you reflect on and develop your own teaching practice. We also hope that this book will demonstrate and reinforce that teaching in the FE sector does present exciting and significant opportunities to develop innovative and progressive pedagogical approaches and this helps you enact and implement ESD in your own area of expertise.

The FE sector is extremely well placed for this task and we as practitioners have a significant responsibility to our students and to the wider community to provide the knowledge, skills and mindset to meet and to overcome the significant social, economic and environmental future problems that they will undoubtedly face.

References

Department for Education and Skills (DfES). (2002). *Success for all: Reforming further education and training*. Discussion Document June 2002. London: HMSO.

Holmberg, J., & Sandbrook, R. (1992). Sustainable development: What is to be done? In J. Holmberg (Ed.), *Policies for a small planet: From the International Institute for Environment and Development*. London: Earthscan.

Huckle, J., & Wals, A. E. J. (2015). The UN Decade of Education for sustainable development: Business as usual in the end. *Environmental Education Research, 21*(3), 491–505.

Kirby, J. (2015) Life-expectancy in Britain almost 30 years higher than a century ago. *The Independent*, Retrieved November 11, 2015, from http://www.independent.co.uk/life-style/health-and-families/health-news/life-expectancy-in-britain-almost-30-years-higher-than-a-century-ago-10481491.html

Learning and Skills Council (2005). *From here to sustainability. The learning and skills council's strategy for sustainable development*. Coventry: LSC.

Scott, W. (2009). Environmental education research: 30 years on from Tbilisi. *Environmental Education Research, 15*(2), 155–164.

Sterling, S. (2001) *Sustainable education: Revisioning learning and change* (Schumacher Briefings). Dartington: Green Books.

Toffler, A. (1970). *Future shock*. New York: Random House.

Trzyna, T. (1995). *A sustainable world: Defining and measuring sustainable development*. London: IUCM/Earthscan.

UNESCO. (2005a). *The DESD at a glance*. Paris: UNESCO. Retrieved November 8, 2015, from http://unesdoc.unesco.org/images/0014/001416/141629e.pdf.

UNESCO. (2005b). *International implementation scheme*. Paris: UNESCO. Retrieved November 8, 2015, from http://unesdoc.unesco.org/images/0014/001486/148654E.pdf