Schooling for Sustainable Development 6

Rolf Jucker
Reiner Mathar *Editors*

Schooling for Sustainable Development in Europe

Concepts, Policies and Educational Experiences at the End of the UN Decade of Education for Sustainable Development

Springer

Schooling for Sustainable Development in Europe

Schooling for Sustainable Development

Volume 6

Series Editors
John Chi-Kin Lee
Michael Williams
Philip Stimpson

This book series addresses issues associated with sustainability with a strong focus on the need for educational policy and action. Current attention and initiatives assume that Education for Sustainable Development (ESD) can be introduced successfully and gradually into schools worldwide. This series explores the issues that arise from the substantial and sustainable changes to be implemented in schools and education systems.

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Editors

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Preface by the Series Editors

Education for Sustainable Development (ESD) has rapidly become part of educational discourses worldwide. Within its global attractiveness lie both its strength and its weakness. Its strength lies in its capacity to alert educators, broadly defined, to a shared concern for the future of both the planet and local communities. Its weakness lies in its lack of shared meaning and, stemming from this, the enormous difficulties encountered in trying to bring ESD into the mainstream activities of educational institutions.

In designating the period 2005–2014 as the International Decade of Education for Sustainable Development, the United Nations sought to bring to the fore the need for politicians, policy makers and practitioners to seek ways by which ESD could become part of the fabric of formal and informal education. At the heart of the numerous initiatives that have been stimulated by this designation is the assumption that ESD should be introduced and can be introduced successfully into schools worldwide. It is assumed that children, older students and adults can be educated formally to act now in the interests of a sustainable future and to act internationally.

What is evident is that different nations have adopted different approaches to ESD, sometimes interchanging the term with environmental education, another term subject to a wide range of interpretations. These differences are evident in educational practice in regions, districts and individual schools as well as in academic studies and commentaries. Obviously, this is not to say that there is no common ground in policies and practice, it is simply to keep to the forefront the recognition that, even when nations make pronouncements about aspects of ESD, these should not be treated as authoritative statements about what is happening at the school and classroom levels. Broad statements have a value in highlighting issues and trends, but they need to be treated with caution. The same caution needs to be applied to pronouncements emanating from academic sources. Academics have their own agendas, and care must be taken when reading what appear to be authoritative statements about developments in ESD occurring within their own communities and nations.

Our series addresses the array of issues arising from attempts made to convert assumptions about, and definitions of, ESD into substantial and sustainable changes principally in schools. Underpinning the series is a concern for identifying those cultural forces that impact national, regional and local adaptations to approaches to ESD that have international currency. In this, the editors of the books in the series, each based on experience in a single continent or an extensive region, seek to counter the strong Western (Australian, North American, European) character of much research and writing in the broad field of ESD. Research and scholarly studies are commonly underpinned by values and assumptions derived from Western culture, broadly defined. The design of the series as a set of broadly continent-scale books seeks to bring together experts from various countries in each continent. The books bring out contrasting experiences and insights with a range of explanations of policies and practice.

Within the broad cultural contexts of the continents and regions included in the series, authors provide evidence of policies, formal curriculum developments and innovations, and informal school-related activities. Some authors have paid close attention to policy making at various levels, others have addressed whole school organisational issues and yet others have provided detailed case studies of localities and individual schools.

Children and young people live in distinct worlds of their own. They have very distinctive cognitive and affective characteristics that vary from one culture to another, at whatever scale that culture is defined. They are also often targets for environmental campaigns that wish to promote particular behavioural changes. ESD is often construed as an attempt to change habits, to encourage children and young people to 'think globally and act locally'. This series demonstrates how this and other slogans are translated in education systems and schools worldwide.

For this volume, *Schooling for Sustainable Development in Europe*: *Concepts, Policies and Educational Experiences at the End of the UN Decade of Education for Sustainable Development*, the editors Rolf Jucker and Reiner Mathar have brought together an array of chapters highlighting the recent developments and issues related to ESD in Europe. The chapters have been written against a background of, amongst other things, economic austerity experienced by most countries, regeneration of post-industrial communities, the intercontinental and extra-continental migration of people, pressures for both centralisation and decentralisation of political decision making and changes in international institutions. These are set in a broad range of natural environmental contexts. Educational policy makers have been engaged in wide-ranging reforms designed to modernise institutional organisational arrangements, curricula and examinations. Schools, colleges, teacher training institutions and universities have all been subject to these reforms.

With regard to ESD, the nations of Europe have developed many distinctive and innovative features. What is evident in this volume is that much effort has been spent in clarifying the relationships between environmental education, itself a marginal aspect of school curricula in many countries, and education for sustainable development. Many of the contributors to this book have been actively engaged for decades in the innovative programmes initiated under the aegis of the Environment

and School Initiatives (ENSI). How ENSI members and other ESD practitioners have responded to the multiple challenges emanating from the UN Decade of Education for Sustainable Development is, as the subtitle indicates, the recurring theme through the chapters.

The book is divided into two sections. Part I focuses on general and cross-national issues, and it provides the context for a series of national case studies, comprising Part II. These case studies highlight aspects of educational policy making and educational practice at various levels from national governments to individual classrooms. They illustrate the variety of experience gained in recent decades mainly in primary and secondary schools. This experience has been set alongside not only policy making but also theory building. Whole school programmes; school-community collaboration; local, regional, national and international networks; and intra-curricular and extra-curricular activities are all highlighted in the chapters.

Hong Kong Institute of Education — John Chi-Kin Lee

Faculty of Education and Health Studies
Swansea University — Michael Williams

University of Hong Kong — Philip Stimpson

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Special thanks to Professor Michael Williams, formerly of the Faculty of Education and Health Studies, Swansea University, in the UK, who, besides encouraging our work, worked hard in reviewing all of the chapters of this book. Also thanks to Professor John Chi-Kin Lee of the Hong Kong Institute of Education and Dr. Philip Stimpson, formerly of the University of Hong Kong, who supported this book in their capacity as series editors.

There would be many other people to thank, but rather than risking forgetting someone, we would like to extend our thanks and gratitude to all those who did help. For us, it was a wonderful journey into the diversity of ESD in Europe.

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Part II Case Studies from Individual Countries or Regions

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Abbreviations

CERI	Centre for Educational Research and Innovation
CoDeS	Collaboration of Schools and Communities for Sustainable Development (EU Comenius project)
CSCT	Curriculum, Sustainable development, Competences, Teacher training (EU Comenius project)
DESD	United Nations Decade on ESD 2005–2014
EE	Environmental Education
ENSI	Environment and School Initiatives
ESD	Education for Sustainable Development
EU	European Union
GC	Global Citizenship Education
IAS	Institute for the Advanced Study of Sustainability
ITC	Information and Communication Technology
n.d.	no date (in references)
NPM	New Public Management
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
RCE	Regional Centre of Excellence
SEED	School Development through Environmental Education (EU Comenius project)
SD	Sustainable Development
SUPPORT	Partnership and Participation for a Sustainable Tomorrow (EU project)
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Organization for Education, Science and Culture
UNU	United Nations University

Part I
General and Cross-National Issues

Chapter 1
Introduction: From a Single Project to a Systemic Approach to Sustainability—An Overview of Developments in Europe

Rolf Jucker and Reiner Mathar

1.1 Introduction

It is almost inevitable to start with some general reflections on the nature of paradigm change and the role education can play in this, if we attempt to summarise and introduce the rich harvest which the following 19 chapters provide on the theory, politics, conceptual development and country and region specific implementation in Europe of what is called education for sustainable development (ESD)—even though authors do not necessarily share the same understanding of the concept.

ESD is defined by UNESCO, the United Nations (UN) body responsible for education, as an approach to learning and teaching that "allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future" (UNESCO 2014a). The need and understanding for such an approach to education has grown out of an increasing, worldwide concern for such issues as climate change, environmental degradation, loss of biodiversity, hunger and poverty. Since the 1970s, but even more so after the so-called Rio Earth Summit in 1992, politicians, the general public and educators have realised that sustainable development (SD)—i.e. development which allows future generations to lead a meaningful life supported by a functioning biosphere—is key to the future of humankind. In addition, it became increasingly clear that "education is essential to sustainable development. Citizens of the world need to learn their way to sustainability.

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Our current knowledge base does not contain the solutions to contemporary global environmental, societal and economic problems. Today's education is crucial to the ability of present and future leaders and citizens to create solutions and find new paths to a better future" (UNESCO 2014b).

On the instigation of Japan, at the Rio+10 conference in Johannesburg in 2002, the United Nations committed to what is called the UN Decade of Education for Sustainable Development (2005–2014) (DESD). The overall goal of the DESD "is to integrate the principles, values and practices of sustainable development into all aspects of education and learning" worldwide (UNESCO 2014c). ESD and the DESD are seen as controversial by some people because of their emphasis on critical thinking, participation, democratic citizenship and equality. ESD practitioners, on the other hand, insist on the importance of ESD in the face of overwhelming scientific evidence that our societies and economies are currently unsustainable.

It therefore comes as no surprise that the authors of this volume start almost unanimously from the assumption that ESD is something bigger than just a little add-on to normal school education. If ESD practitioners, so they seem to argue, take the challenges of sustainability or sustainable development (SD) seriously—i.e. the serious imbalances humankind has brought to its life-insurance system planet earth, to justice between its people and between present and future generations—the only sensible conclusion seems a paradigm change in European societies, economies and educational systems. In schools, this does not mean adding additional SD content to existing lessons, but developing the contributions of all subjects and stages of education to SD. In other words, the authors advocate education *for* SD instead of education *about* SD.

There is also the underlying assumption that ESD is equal to a comprehensive understanding of good quality education *per se*, and that such an education can, nowadays, only be transdisciplinary both in its pedagogical approaches and its content.

1.2 Part I

Several chapters, particularly in part I, engage with this bigger perspective and ask some searching questions at the end of the UN Decade of ESD (DESD). If future oriented education needs to focus on the necessary competencies for learners to enable them to face the sustainability challenges ahead, asks Mathar in Chap. 2, does this not mean that the concept of sustainable development (SD) should underpin all of school education, but in a holistic way, so that all aspects of a school are guided by SD principles?

Mayer and Breiting take the quality discussion a step further in Chap. 3. They argue that what they call the empowerment perspective of ESD has a genuinely socio-political dimension: only if ESD manages to imbue the learners with real ownership of whatever change processes might be needed locally to increase sustainability, will ESD finally mature from an issue-focused campaigning tool to a real participatory learning journey. There is a need for a clear and informed

understanding of quality criteria so that progress on the journey can be critically assessed. It is important, so the authors stress, not to see such quality criteria as a given structure or check list to follow and tick slavishly. Quality criteria for ESD should be designed to encourage learners to ask reflective questions about SD and ESD and the implementation of (E)SD in concrete practice.

In Chap. 4 William Scott provides one of the conceptual centre-pieces of this book. His critical look at the promises and results of ESD, and at some of the conceptual tensions that arise between the need for real-world change towards sustainability and the necessary openness of educational processes is insightful. Any advocates of self-proclaimed ESD programmes which cannot convincingly answer questions about the contributions these make to sustainable development in the real world need to engage in critical reflection. Equally, if ESD is viewed by teachers or teacher trainers as something to be taught and disseminated, rather than as an open learning process, serious doubts should be raised. Also—since many authors state that social, political and economic change should not be delegated to schools, but be the obligation of the relevant actors in society—schools should prioritise facilitating the learning of students, rather than institutional change, even though the latter can clearly help and support the former. Scott cautions readers against too lofty or grand ideas of ESD as a force for bringing about socio-economical transformation. He argues that, in the best cases, ESD can create the conditions for transformation, but only on a small-scale and on the ground.

From the eagle-eyed perspective of a European member of the UNESCO high-level panel on ESD, a number of disturbing questions are highlighted by Lindberg in Chap. 5: decisive leadership and the political will to tackle SD issues depend on a well-educated public, but the decisions are needed now, not in the future when effective ESD programmes might have made their impact on the wider population. What needs to be done? Why, in many countries, do environmental or development ministries continue to be the main drivers and financiers behind ESD, and not education ministries? How do we get out of the double-bind underlying ESD, namely that people with the best education world-wide, i.e. in Western countries, have by far the biggest individual ecological footprints? How can education really create deep understanding of production and consumption patterns and their destructive impact on the planet? How do we merge top-down governmental and bottom-up grass-roots processes so that they reinforce each other, rather than block each other? These are all pertinent questions addressed in this book and finding answers will be an ongoing task in the post-DESD period.

Wals raises this analysis to a different level in Chap. 6. His is not primarily an inside look at the ESD community, but an outside perspective on what is happening to learning in general in our societies and how this might interact with developments in ESD. Based on a number of trends in business, society and education, he shows that relevant real-world learning increasingly happens in boundary-crossing contexts. Here it is difficult to delineate formal from non-formal and informal learning, school learning from learning in other social contexts. He argues that ESD should become hybrid social learning, where new partnerships and co-operations facilitate rich and exciting learnings which otherwise could not

happen. Wals cautions that these new forms of learning are demanding and difficult to organise.

Wals makes an important point in relation to the transformative and transdisciplinary nature of ESD which—as we have stated—is shared by most authors in this volume. If we are to take these two elements seriously, then ESD has to grow up and move out of the confined spaces of traditional schooling which is generally based on the same foundations as when it was invented as a handmaid for the Industrial Revolution. To move away from this requires new, often temporary learning environments with a whole host of different stakeholders and actors. Wals suggests that if ESD really wants to lend a helping hand to tackling sustainability issues in an integrative, critical and systemic way than it needs to grow into cooperative social learning which deserves the name: unless ESD takes in, cooperates with and reflects current learnings in many relevant fields, such as social media, technological development, power structures, economic systems, and much more, it will just remain an insignificant little bubble, mainly concerned with itself, rather than the world out there.

Wals also raises, but does not really address, two main issues of SD which are rarely ever touched upon in ESD, namely power and inequity. Without a deep understanding of how our societies work and function (and that is primarily a discourse about power), any transformation strategies ESD might come up with are severely limited in scope and impact.

The perspective taken by Dillon in Chap. 7 is important for overcoming the still ongoing trench war—manifest in some of the country chapters in Part II—between environmental education, ESD and other 'some-issue'-educations. By using a cultural ecology frame it becomes manifestly clear that it is nonsense to separate humans from the environment, poverty, heath issues or social justice. All of these SD dimensions are clearly co-created by humans, and this is true on a social, psychological, institutional, economic or environmental level. By focusing on connections and differences, Dillon manages to pinpoint where meaningful change and learning might occur, reinforcing Wals' message. The creative space happens in boundary encounters where differences between stakeholders, disciplines, and ways of knowing merge, at a given moment and in a particular place, into something new—which equals learning. This creates relational, rather than fixed knowledge or practice. Interestingly, Dillon also concludes by suggesting that only such relational, interdisciplinary explorations in learning can adequately address the most pressing SD questions, such as the structure of power, the distribution and allocation of resources, fairness, justice and moral responsibility, and not least reconciling individual with communal needs.

1.3 Part II

Part II starts with Mathar's analysis of developments in Germany, by many seen as one of the European countries where the DESD has made most progress. Yet Mathar draws a cautiously optimistic conclusion: despite all the tangible

successes, such as a cross-party politically mandated National DESD committee and action plan, structural integration of ESD in German states and a sound programme for training multipliers, many tools and an elaborate national ESD website, not to forget more than 1,700 certified individual ESD projects, there is still a lack of understanding and acceptance of ESD amongst politicians and the general public, there is insufficient structural and institutional anchoring of ESD in schools and only the beginnings of comprehensively ESD focused regional educational landscapes.

Jucker and Nuoffer, in Chap. 9, take the paradigm shift, implied by all UN documents on ESD, seriously and ask what this means for education. They raise similar questions as Lindberg in Chap. 5. They suggest that a fundamental rethink of education is needed to foster a sustainable world, given that current educational systems—particularly if successful in conventional terms—strengthen the *un*sustainability of the current state of the world. By analysing Switzerland's performance during the DESD against criteria suggested by the DESD Monitoring and Evaluation group, they conclude that despite progress on the surface, much work still needs to be done. They argue, like Wals, that the way forward lies in a broader understanding of learning, widening the types and areas of learning as well as the actors, i.e. the learners involved. These are not any more just the pupils or students, but all the participants in such a sustainability learning process, including teachers, facilitators, decision makers and leaders at all levels of the system.

Two further conclusions follow from this: the post-DESD aim should not be to mainstream ESD into the existing unsustainable education system, but to co-create a new educational system—along the lines of Wals' and Dillon's hybrid boundary-crossing social learning communities of practice—which equals ESD. Secondly, they caution, akin to Scott, against grand ideas of 'changing the world'. Meaningful and effective sustainable transformations will only happen locally and on a small scale.

Rauch and Pfaffenwimmer focus in Chap. 10 on another crucial driver for ESD, namely networks. Austria's lessons learnt from previous decades strongly indicate that networks at all educational levels can strengthen and nurture the mutual exchange of experiences (rather than one-way transfer) amongst ESD practitioners. In addition, they can build the trust necessary for success. Yet experience also shows that the main challenges for successful networks lie in finding the delicate balance between structure and process, stability and flow.

A long tradition of research and practical implementation of ESD in Catalonia leads Espinet, Junyent, Amat and Castelltort, in Chap. 11, to reinforce the Austrian message that networks are key to successful ESD implementation. Yet they add a couple of distinct new elements: a number of Catalan research groups and networks focus on collaborative research models, which start from the assumption that school community networks need to be underpinned by research that takes seriously the contribution made by a diversity of agents such as pupils, school teachers, researchers and others. Apart from emphasising the importance of the collective construction of knowledge and experiences in regional, national and international school networks, the authors also focus on the vertical dimension of implementation in schools. They show that a successful participatory approach to an ESD school cannot so much be deduced from SD topics in the curriculum, but rather

from the institutionalised structures of participation. Catalonia, as other countries such as Hungary, is also a good example showing that the entire discussion around ESD cannot be separated from the wider social and economic context, especially since the recent financial crisis has drastically impacted on what is and is not possible.

The exploration of the way environmental education (EE) slowly develops into ESD is an interesting journey into systemic analysis. Réti, Horváth, Czippán and Varga show in Chap. 12 that only a multitude of combined elements brings about systemic change—including slow step-by-step changes, horizontal knowledge exchange, reward and support systems for stakeholders, empowerment of practitioners as well as institutionalisation of structures. Apart from visualising the various understandings of ESD in relation to EE, they make one more crucial point: even if there is a rather comprehensive national strategy on ESD, this does not amount to much on the ground, if support and rewards for ESD are not built into existing, regular support structures.

Chapter 13 on Finland takes a different route. By focusing on the concrete examples of two schools, Åhlberg, Aineslahti, Alppi, Houtsonen, Nuutinen and Salonen home in on what they think is the essence of ESD: a good life based on respect for a systemic, scientifically grounded, holistic world-view. What they call an ecosocial approach to education enables an understanding of the world that clarifies the interdependence of human life, including the economy, on healthy ecosystem services, sustainable use of resources and biodiversity. The perspective from the Finnish National Board of Education adds an interesting element: SD was emphasised in the most recent revision of the national core curriculum, yet if pupils are interviewed on related learnings, it transpires that they have a fairly good grasp of a very narrow set of technical ecological knowledge (such as on recycling or energy-saving), yet no real grasp of systemic understandings or biodiversity.

Andresen, Høgmo and Sandås refine and complement a number of findings from previous chapters through an analysis of ESD in Norway (Chap. 14). Norway has been comparatively fortunate to have a strong national strategy on ESD, some exemplary national programmes on EE and ESD such as the projects SUPPORT and Extreme Weather as well as the Environmental Toolbox. Yet in summarising the lessons learnt during the DESD, the authors identify a number of obstacles to good ESD implementation which also exist in other countries: the pressure to focus on literacy, numeracy and ICT diverts necessary energies from transdisciplinary ESD projects; teachers and schools are often overstretched to adapt the national core curricula into a truly local ESD curriculum; the kind of boundary-crossing collaborations mentioned above are very demanding for all involved, with the result that they do not happen as often as they should; there is a strong correlation between pupil's learning outcomes and the level of collaboration with outside stakeholders, reinforcing Wals' and Dillon's messages for cross-stakeholder engagements: it actually increases the quality of learnings; many ESD projects have not been able yet to break out of specific boxes, such as a natural science orientation; and lastly there is, in Norway at least, no vertical integration or feedback loop from local experiences into national educational policy making.

What transpires from Norway is also true for other countries, such as Switzerland, Germany, or the UK: even if there are national policy documents or support structures for ESD, this does not, on the whole, translate directly into meaningful ESD in individual schools, particularly if the national guidance documents are not localised and not backed up by an enforced system of reporting and evaluation.

This view is also enforced in Chap. 15 on Denmark. Rolls, Dahl Madsen, Roug and Larsen present three very diverse and interesting individual examples of successful ESD implementation in their country. Yet, paradoxically, these promising examples also show how unfamiliar the concept of ESD is amongst Danish teachers and how uneasily it sits with current teacher's practices and organisational structures which are firmly rooted in strict traditional disciplinary approaches. The richest mutual learnings in all three case studies can be attributed, again, at cross-boundary stakeholder engagement: collaboration does challenge all involved and allows participants to move forward into new, more nuanced understandings. In Denmark, again, there is a tension between the relative autonomy of teachers (which allows ESD, but might leave it in the margins with a few enthusiasts) and the tendency of the national educational system to focus on literacy, numeracy and ICT. Whether reform or paradigm shift will be on the agenda, the authors suggest that collaborative, cross-curricular and cross-stakeholder solutions will be an important element either way.

Van Poeck, Loones and Claus present a unique perspective in Chap. 16, with their reading of the situation of ESD in Flanders. They provide an important piece of self-reflective soul-searching that would benefit ESD practitioners in most other countries as well. It is an analysis focused on Flanders, but very good arguments could be made to place the chapter also in Part I amongst the more generally conceptual analyses. The main insight they provide is that what we often perceive as an autonomous discourse framed by ESD theorists and practitioners is, in fact, framed by broader developments in society and the environment, such as the impact of the ESD discourse on EE, the framing of social and political problems as learning problems and what they refer to as ecological modernisation. Their discourse analysis makes clear that by defining ESD in certain ways, by enshrining it in policy documents and demanding certain practices we not only enable or encourage certain practices but always also disable and discourage other practices, which, in fact, might be far more sensible or locally adequate in view of sustainable solutions. In other words, they highlight the tension between managerial policy processes and open-ended learning experiments, embedded in a specific local practice based on voluntarism and commitment. Implicitly, they pose the question whether a managerial problem-solving approach, based on strategies, national policy documents and implementation guidelines, is actually compatible with an educational, i.e. learning approach. This echoes Scott's as well as Mayer and Breiting's concern that a focus on institutional change or issue campaigning might undermine education's prime concern, namely to foster learning and growth in understanding.