RESEARCH AND INNOVATION IN EDUCATION FOR SUSTAINABLE DEVELOPMENT

Wim Lambrechts / James Hindson (editors)
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Research and Innovation in Education for Sustainable Development.
Exploring collaborative networks, critical characteristics and evaluation practices.

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**ENVIRONMENT AND SCHOOL INITIATIVES — ENSI: A PRECIOUS NETWORK FOR THIRTY YEARS!**

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**ENSI HISTORY**

Environment and school initiatives (ENSI) was set up as a research and development project of OECD’s Centre for Educational Research & Innovation (CERI) from 1986 to 1994 and changed into a decentralized international network under the umbrella of CERI in 1995. As a result of a reorganization of OECD all decentralized networks became independent in 2002 and ENSI was recognized as an international non-profit-association in 2008. ENSI is now an association under Austrian law and is based at the Ministry for Education and Women’s Affairs in Vienna. The ENSI network is financed by its members and through its own project work.

ENSI cooperates with major international organisations such as UNESCO, UNECE, UNEP (Carpathian Convention), RCE/UN-Universities, CEE India, Baltic21 and others. The members of ENSI are all experts coming from governments, international organisations, institutions such as universities, schools, NGO’s and civil society. Partners come mainly from Europe, Asia and Australia. The network’s organisational structure consists of a permanent board with a secretariat for daily businesses and project coordination. ENSI partners cooperate actively in projects proposed by them to the general assembly and being planned and submitted by the secretariat in cooperation with the interested partners.

Through these collaborative processes ENSI’s work and activities are directed by working environments and the needs of its members: the network prepares studies on teacher education, carries out research and develops guidelines for future oriented teacher education. ENSI also organises studies on school development in education for sustainable development (ESD) and develops guidelines and quality criteria through cross analysis of these studies. ENSI influences policy decisions at the international level by combining international processes of quality development and quality improvement and formulating guidelines and criteria. It supports
schools by helping them in their own development and promotes international ex-
change by influencing networks across Europe and other regions of the world: “ENSI
organises and affects the exchange of expertise in the field of research education on
sustainable development (SD) and also offers a platform for senior experts, as well
as for young, innovative researchers.” (Quotation from UNESCO Review of Contexts
and structures for Education for Sustainable Development 2009, Arjen Wals). The
engagement to actively involve young researchers in the ENSI network is described
further in this book in the chapter “Cultivating Action and Collaborative Research on
ESD: Case study on the ‘new researchers generation’ in ENSI’s network” (Mayer and
Tschapka, in this publication). Furthermore, the involvement of young researchers
is also reflected in the innovative contributions that many of them provide in other
chapters of this publication.

ENSI’s strength lies in the combined work of policy makers, researchers, teacher
educators and their students, pilot schools with teachers and students, communi-
ties and a broad variety of organisations from the field of environmental education
(EE) and ESD. As a result of the unique framework of partners ENSI is able to react
swiftly to needs and questions and because of this is one of the frontrunners in
international ESD developments.

**ENSI MISSION**

From its beginning ENSI has supported and initiated educational developments that
promote environmental understanding, active approaches to teaching and learning
and citizenship education, through research, policy development and the exchange
of experiences and knowledge.

ENSI’s projects and work all try and include a number of what have been called
‘dynamic qualities’. These include ‘dealing with complexity’, ‘the ability to reflect
on personal values’, ‘the ability to take responsibility’ and ‘initiative and readiness
to take action’. Very importantly, projects also include the will to bring these
competences into reality. This set of skills has been part of ENSI projects since the
beginning and are favourably accepted internationally. They have guided ENSI over
many years of intense and fruitful international and national work.

Using these dynamic qualities and respecting to the cultural identity of the
partner’s, ENSI has made a significant contribution throughout the ten years of the
UN-Decade on Education for Sustainable Development. Five large projects with a
total of more than hundred partners have been delivered between 2002 and 2014.
• School and community collaboration for SD (CoDeS, 2011-2014)
• Partnership and participation for SD (SUPPORT 2007-2009)
• ESD in the Carpathian region (CASALEN 2007-2009)
• Teacher competences for ESD (CSCT 2004-2007)
• School development through Environmental Education (SEED 2002-2005)

Partners in these projects came from the following countries - Australia, Austria, Belgium/Flanders, Canada, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, India, Italy, Japan, Republic of Korea, Malaysia, The Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Spain/Catalonia, Sweden, Switzerland, United Kingdom, Ukraine.

The outcomes of all five projects have delivered significant contributions to the work of teachers, principals, authorities, teacher educators, students and research partners.

WHOLE SCHOOL APPROACH - A RED LINE IN ENSI ACTIVITIES FROM THE BEGINNING

In 2012 a UNESCO Report on the global status of ESD is strongly emphasizing, that ESD has to build up competences FOR a more sustainable life and is not teaching and learning ABOUT sustainable development only.

The concept of sustainable development has to change the general guidelines and core elements of societies. That means ESD is not about, but for sustainable development. Looking at ESD from this perspective integrating topics of sustainable development into the curriculum of just some subjects is not enough. The question is, what are the contributions of all subjects at school and all training in the vocational sector? Learners and educators must link the concept of sustainable development to their subject and everyday practice of education. That includes the educational organisation or schools as an institution. However, a prerequisite for this is that sustainable development should not be seen as a closed concept with given solutions. It must be considered as an on-going process, finding new and the best solutions. That’s why ESD should introduce the concept of life-long learning to everyone at school. While children stay at school they need the possibility to develop and realise their specific concept of life-long learning. Against this background there is a need for change within the whole education sector. Teaching, learning, student’s participation and cooperation with the local community and partners in the society all need to change. Instruction must be replaced by co-construction between students, teachers, parents, partner and experts from outside schools.
Different areas of cross-curricular education such as Environment Education, health education, education for democracy etc. can be doorways to ESD. The impact on the concept of the whole school approach will be shown by describing the elements in detail.

This general change of education towards ESD means that schools must be seen as role models for sustainable development. Pupils and students spend an increasing part of their daily lives in school, so that school becomes more and more the place of authentic real life experiences. ESD must be offered and realised at school and include issues such as food- and consumer education, social learning, energy use and personal resource management. Furthermore, a school is the perfect place to reach a whole generation in a safe learning environment. Young people can test and develop key life skills and their own lifestyle. The understanding that sustainability is the guiding principal will help schools to develop.

From its beginning ENSI integrated this in the basic concept of Environment Education and later on in ESD. The concept of dynamic qualities is one element of it using the school and its organisation as a learning area for EE and ESD is the other side. When schools made research on their energy consumption and then developed solutions on the technical and behaviour side, they contribute to the development of sustainable lifestyles. Other projects and areas for schools include traffic and mobility, water and waste management. From the beginning ENSI schools linked their activities to the local community and sought to spread their experiences and change even the behaviour in the local community and families. Elements of the whole school approach to ESD include all elements of teaching and learning, the management and the maintenance of the school. The mind map shown in figure 1 links the various aspects of the whole school concept.

The ENSI network works with ENSI based experts and supports studies on school development and ideas of the whole school approach to ESD. ENSI experts have been involved in studies by the Australian Research Institute in Education for Sustainability (Ferreira et al., 2006) and the British “S3 concept” (UK Government, 2008). While the Australian study investigated ways in which learning for sustainability can be mainstreamed in teacher education, the “S3 concept” of the British school inspection system offers an interesting self-evaluation instrument for ESD. It presents a great possibility to interlink different aspects of SD and ESD, by identifying different doorways to ESD including:
Whole school approach to ESD

School based curriculum

With the focus on global development

Teaching and learning processes

- English Pedagogical contents
- Learning others

School environment

- School building
- School organization

Partnerships with NGOs

School social work

- School living
- School social work

Democratic practices at school

- School board
- Student parliament

School awards

- School based curriculum
- School social work

School management

- School organization
- School social work

Sustained mobility

- Sustainable mobility
- School traffic safety

Local educational events

- Local educational events
- Local learning landscapes

Teaching and learning offers

- Planning of lessons and learning offers
- Professional development

Student engagement

- School engagement in ESD
- School engagement in ESD

School networks

- School networks
- School social work

School based curriculum

- School based curriculum
- School social work

Sustainable student enterprises

- Sustainable student enterprises
- School social work

Figure 1. Whole school approach
• focus on food and drink;
• focus on energy;
• focus on water;
• focus on travel and traffic;
• focus on purchasing and waste;
• focus on school buildings;
• focus on school grounds;
• focus on inclusion and participation;
• focus on local well-being;
• focus on the global dimension.

The transition from different areas of ESD to a whole concept means that different “cultures” of cross-curricular education need to be considered, especially in the following areas: environmental education, education for global development, health education and education for democracy.

The latest realisation of the concept is integrated in the national curriculum framework for ESD decided by the standing conference of Ministers of education (KMK) June 2015 in Germany. This curriculum framework includes a new chapter on whole school approach for ESD (‘Der Lernbereich Globale Entwicklung als Aufgabe der ganzen Schule’) and will lead to a change in the practice of German schools in the long run (Mathar, 2015).

CODES: SCHOOL AND COMMUNITY COLLABORATION FOR SUSTAINABLE DEVELOPMENT
CoDeS is a multilateral network - a network of networks comprising twenty-nine partner organisations whose work focuses on collaboration between schools and communities to address ESD and issues of sustainability. Experiences before and during the UN-Decade on ESD showed that establishing collaborative networks, including schools and civil society, is crucial for the implementation of ESD. These locally based networks are on the one hand places where citizens can find local identity and on the other they can act as change agents for fostering local culture and knowledge, develop a common language and act as a forum for ideas and visions. Schools and communities share many challenges including the integration of immigrants, dealing with the consequences of the economic crisis and a loss of cultural identity in a more and more globalised world. Better mutual understanding of these and collaborative work on future leading developments is crucial for the well being of a local society.
CoDeS’ overarching aim throughout the project from 2011 to 2014 was to explore, and provide models, ideas, learning and teaching methods, case studies, tried and tested tools as well as helpful suggestions for reflection. A challenge for any holistic approach to a thematic field lies in the diversity of stakeholders. Hence in the CoDeS project team as well as in school-community collaboration projects, CoDeS started its work with an investigation of existing school-community collaboration, focusing on the factors that made them successful. The context of the existing case studies and experience was diverse in terms of stakeholders, cultural backgrounds, and countries and therefore demanded methodologies that respected and acknowledged diversity, developed its theoretical base and produced tools to facilitate practical applications. Project partners, all of them experts in the field of teaching and learning as well as collaboration analysed, developed and piloted methods and materials for collaborative partnership projects. CoDeS tools for school-community collaborations used the quality areas for such collaborations developed in the publication ‘Keystones on school-community collaboration for sustainable development’ (Espinet and Zachariou, 2014). These quality areas include participation, communication, learning, action, vision, resources, mandates and research. The CoDeS partners have developed the following products:

- Travelling Guide for school-community collaborations for SD (Handbook for the reflective practitioner) (Affolter and Réti, eds., 2014);
- Toolbox for school-community collaborations for sustainable development (Methods, techniques and tools for collaborations) (Maso, ed., 2014);
- Interactive Website for school-community collaboration (Platform open for school and community projects);
- Digital Handbook for local authorities for school-community collaborations (Wagner-Luptacik and Smith, 2014);
- Profiles of isolated communities and ways into integration (Research in cooperation with remote communities) (Liarakou et al., 2014);
- Key Stones on school-community collaboration for sustainable development (tool for reflection on the quality of school-community collaboration) (Espinet and Zachariou, 2014);
- Selected Cases of school-community collaborations for sustainable development (Selection of successful collaboration projects) (Espinet, ed., 2014).

THE FINAL EVALUATION OF CODES BY THE EACEA
The EACEA (Education, Audiovisual and Culture Executive Agency of EU) ranked the project as excellent. Some of the challenges and highlights of CoDeS are mentioned...
by the evaluators: “The nature of ESD as a subject demands an approach which is multidisciplinary; in order to be meaningful, it must operate at the interface between formal education and the different levels of the community, so the approach has also to be multidimensional. The emphasis, placed in the original CoDeS application, on the need for the network to exemplify collaborative knowledge-building in its processes and in its products, was appropriate. But this assemblage of key factors produces complexity laid upon complexity, and careful attention is needed to ensure that the necessary complexity does not prejudice the clarity and applicability of outcomes. In the event, CoDeS products between them, and in some cases within a single product, manage to achieve a fair balance between complexity and applicability. For example, the Keystones document provides an analytical framework for school community collaboration for sustainable development, whereas the blog collection of cases is aimed above all at the practicing teacher. Within a single outcome, the Travelling Guide addresses basic questions arising from collaboration and includes a Theory Box, but also exemplar cases. A key objective for the network was to promote the adoption of ESD methods in science education more generally, thereby further enhancing inquiry-based learning; in the event, over 50% of CoDeS cases have science education at their heart.”

Over the full project period a group of ENSI Junior researchers collaborated closely with experts, conducting a multi layer evaluation, setting focus on internal and external learning processes. The analyses and reflection of processes within the project group contributed significantly to a deeper understanding of ‘learning’ and ‘intercultural understanding’. This unique matrix of evaluation is described further in this book, in the chapter “Evaluating Education for Sustainable Development Programmes consistently with Education for Sustainable Development values: a challenge for evaluators” (Mayer and Dillon, in this publication).

The CoDeS partners experienced an intense and fruitful collaboration over three years – CoDeS has reached its goal of growing into the status of a learning organisation, with a strong link to reflection and to democratic, solution finding processes.

For more information about ENSI and CoDeS, visit ENSI’s homepage at www.ensi.org and find here all projects outcomes free for download.

REFERENCES