



## REVIEW ARTICLE

### SKILLS FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT IN TEACHER EDUCATION

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#### ABSTRACT

Rupture of diaphragmatic hernia is a Current literature on education for sustainable development records a number of skills for education for sustainable development in a variety of branches of learning with the exclusion of teacher education. This paper highlights the requirement for discussions on this topic by exploring the skills for education for sustainable development in teacher training, thus providing educators with a structure of reference and reflection for planning, implementing and reflecting on education for sustainable development actions and stimulating reflection or discussion on skills in education for sustainable development activities. Therefore, this article aims at addressing the issue based on the skills that education for sustainable development teachers need, both in the formal and informal area of education.

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## INTRODUCTION

Numerous research papers on education for sustainable development have been published since the 1992 UN Conference on Environment and development in Rio de Janeiro where education for sustainable development was an essential subject matter. The declaration of the United Nations Decade of Education for Sustainable Development for the period of 2005-2014 emphasized this progress. Diverse efforts have been undertaken to build up associations among stakeholders in global learning, citizenship education, intercultural learning, health education, peace education, etc, which can contribute to education for sustainable development. Unpredictably, there is wide consensus in all these educational trends as to which skills are needed to deal with the recent issues of humankind and the earth. Competencies required to support sustainable development are already in existence. But, little has been published on the competencies that Education for Sustainable Development teachers require, both in the formal and the informal fields of education to help in the reference and reflection for planning, implementing and reflecting on Education for Sustainable Development activities.

## Sustainable Development

"Humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being"<sup>1</sup>. "Sustainable development requires us to acknowledge the interdependent relations between people and the natural environment. This interdependence means that no single social, economic, political or environmental objective be pursued to the detriment of others. The environment cannot be protected in a way that leaves half of humanity in poverty. Likewise, there can be no long-term development on this depleted planet"<sup>2</sup>. A sustainable economy and society can only be the result of a social process of searching, learning and design. Sustainable development can provide a guiding principle and framework for reflection on the skills needed to usefully supply diverse conceptions and interests which will be of vital importance. The notion of sustainable development should not be restricted to an excessively negative review of universal issues, but rather should show an optimistic approach, that is a realisable image of a pleasing future. Society should thus contribute in creating such an image for tomorrow, which takes into consideration the interests of all social groups.

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<sup>1</sup>. United Nations Conference, 1992, p.1.

<sup>2</sup>. UNESCO, 2002, p.8.

The aim of sustainable development must be a socially reliable, economically equitable and ecologically feasible development that takes up humanity as a whole and comprises of opportunities for future generations to prosper. Thus, it highlights ambitious challenges to individuals, as well as to society at large. Here, education is recognised as the master key to obtaining a sustainable society: "It is widely agreed that education is the most effective means that the society possesses for confronting the challenges of the future [...]" states UNESCO's policy report *Education for a Sustainable Future* (1997, paragraph 38). In 2000, the world Education Forum in Dakar recorded that education forms the real foundation for sustainable development (UNESCO, 2000). In late 2002, the United Nations Plenary Assembly thus proclaimed the Decade of Education for Sustainable Development.

### **Education for Sustainable Development**

Education must be implemented with social visions and cannot be isolated from society. On the other hand, it must be clear about its limited impact. Teachers must be conscious of the social dilemma in which Education for Sustainable Development functions. But, as educators it is particularly their task to support the next generation to participate in shaping society. Education for Sustainable Development provides social concerns the emergence of social policy visions, a notion of a better world to which it can be engaged. With the idea of sustainable development, it is likely to communicate complex facts to pupils while giving them the feeling that the problems at hand can be dealt with. Sustainable development does not reject problems, but portrays them as essentially manageable, thus strengthening young people's optimism about the future. Education is only one measure that must go hand-in-hand with political and social changes. Education for sustainable development does not intend to transform people's lifestyles, but to "empowering and encouraging them to participate in designing sustainable development and to critically reflect on their own action in this area"<sup>3</sup>.

Transforming individual competencies is not adequate. What is required is a suitable scope for action and structures that permit individuals and social groups to entrust themselves to a sustainable lifestyle. The challenges showed by this concept need a re-organization of the broad framework leading the educational system, but also innovation and improvement in teacher education that allows teachers to take efficient action within the system of education. Nevertheless, there is no common definition of the skills that Education for Sustainable Development teachers should have.

### **Skills for education for sustainable development in Teacher Education**

In order to deal with a difficult problem, one must not only understand the facts, which in turn presuppose know-how and skills, but also gather together motivation, feelings and values. To be successful, educational programmes must consequently involve the area of affection as well. Furthermore, skills and competencies do not survive without help of action and context, but are applied by acting in given contexts. Here is where the connection and contact between individuals and society becomes noticeable.

When devising Education for Sustainable Development skills and competencies, notice should be geared not only to individual skills and abilities, but also to the setting and context for teachers that are classroom teaching, school community, society and so on. Therefore, the skills may refer to team or group competencies that are the interplay of individual competencies that allow a group to solve problems mutually. Particularly in the framework of Education for Sustainable Development, cooperation and joint problem solving are of basic significance. Teachers require skills to generate a climate that is favourable to learning, to plan a suitable learning environment, to connect with the individual background and aptitudes of the learners, to choose and employ proper methods, and to create chances for active participation. Surrounded by the institutional and societal settings, teachers must search for cooperation partners within and outside of their own institutions. While these are skills teachers usually require, they are vital in the complex Education for Sustainable Development setting, which needs a high extent of willingness to cooperate, to solve conflicts and to work in teams. Outside one's own institutions, the capability to set up contact and cooperation with other educational institutions and to plan learning opportunities for the learners is required. One of the components of the skills and competencies is "Knowing" and it comprises of gaining common knowledge of the contents of sustainable development and of education for sustainable development, linking contents from the various disciplines and from social and cultural contexts, and being able to comprehend their interaction, becoming conscious that knowledge is culture and value driven, dealing with the uncertainty of such knowledge and critically challenging knowledge and developing it further in a joint, practical approach.

Another area is "Acting" whereby methods and strategies should be known so as they are used to apply the knowledge, thus aiming at promoting skills among learners such as developing values, fostering conflict-solving, communication and teamwork, supporting problem-solving, encouraging critical thinking, handling complexity, developing future perspectives as well as furthering participation and responsibility. In the area of "feeling", the players strive to empathise by, for instance, listening and putting themselves in the place of others (change of perspective). Their approach is optimistic. They believe firmly that sustainable development is feasible and that, together, they are able to make a contribution toward that end. They keep their eagerness for Education for Sustainable Development alive and try to motivate others to do the same. Instead of encouraging fears and frustration, they support learners in their empowerment. By its nature, Education for Sustainable Development is an optimistic, future-oriented notion put together on the concept that a sustainable world is achievable and that individuals can contribute to it. "Values" has a multi-layered dimension. Firstly, it concerns values that the players themselves stand and argue for. Secondly, it concerns the educational goals that are to be encouraged or changed, such as a polite attitude towards others, overcoming black-and-white mentalities in the context of sustainable development and so on. Thirdly, it is about values that are lived and which are considered attitudes and beliefs. It is also about how values are addressed in instruction, such as in debates on values. Teachers may find a constantly enthusiastic attitude towards pupils to be one of the ideal and at the same time most difficult needs.

<sup>3</sup>. Kunzli David, 2007, p.30.

“It is not about training children to adopt a behaviour which has been recognised as “correct”, but about supporting them in taking decisions based on their own judgment. “In the past, I wanted to convey to the children something along the lines of: “What is good? What is the right way of doing things?” Black and white somehow. Now, with the concept of sustainable development, I have abandoned this altogether”<sup>4</sup>.

Teachers need to understand and accept that pupils sometimes arrive at conclusions that differ from what they have planned. In such a condition, instruction no longer intends to push pupils towards making a better world, but encourage them to take autonomously justified decisions founded on differentiated knowledge and reflected values, thus the focus being on the power to negotiate and decide and not to change behaviours. “Communicating” and “reflecting” are essential components as well. Communicating is a skill without which all other areas are unthinkable. While communication is an essential condition for planning, organising, and networking, it is not an issue for the more individual areas. But, in Education for Sustainable Development, communication is crucial for values, which is a grateful dialogue that respects the views of others and takes them sincerely. It is also crucial for feeling that is the capability to deal with extremely personal issues, which are liable to be given short shrift or totally left aside in teaching. Moreover, it is essential for knowing and acting, which is sharing one’s personal experiences, individual knowledge and competencies and making them helpful and beneficial for others instead of keeping them to oneself.

Reflection is essential as a way to critically tackle with oneself, one’s own know-how, competencies and skills, values and feelings. Such reflection is in the same way significant with regard to action taken. The teachers must be aware of how important personal reflection and the further development of teaching are, as “education for sustainable development is a change of paradigm, not just a continuous further development, which makes the matter more difficult for many of those involved”<sup>5</sup>. For the introduction of Education for Sustainable Development, in-service teacher education, training events, team formation and support from networks are frequently needed as gate openers. For teachers, this may indicate that reflection becomes second nature to them, using tools such as learning diary or action research. Also, teachers must make use of the allocated teaching time in a different way. They require enough time to develop the related contexts, but also for permitting pupils to reflect on what they have learned, the insights they have obtained, and whether this form of learning is beneficial for them. Sustainable development is an optimistic notion of not only identifying and reacting to the issues of the present, but also developing visions for the future. How do we desire to be in this world sustainably? Or concerning teaching: what should learning resemble in the future? In what directing are we going with our teaching, our school in general? What are our aims and objectives? Therefore, it consists of setting goals, reflecting on what is achievable in a given situation, and translating these thoughts into reality, thus leading to the approaches of “visioning”, “planning” and “organising”. “Building and maintaining networks” within institutions and externally with other persons and organisations is crucial for the Education for Sustainable Development skills of teachers. With Education for

Sustainable Development being such an exceptionally composite field of action, in which diverging fields such as the economy, the environment, society and politics must be interconnected, and for which common methodological knowledge is needed, it is more or less unfeasible for teachers to take action as independent individuals. They must create contacts with others, work in exchange, engage in groups and teams, and collaborate with others and with their institutions. Successful collaboration and teamwork within their institution as well as with external persons and organisations blooms on team work, conflict management, tolerance, communication skills, respect of heterogeneity and diversity and so on. As one mandatory and indispensable skill, Education for Sustainable Development teachers must be capable to organise and moderate collaboration and assistance with non-formal educational organisations, so as to make plans for learning opportunities for pupils in and with external organisations. Pupils would like to be taken sincerely, work constructively in their individual environment, and be capable of leaving an imprint. From a pedagogical point of view, on the other hand, the decisive factor is not only the execution of successful activities or visible transformation in the surrounding world, but choosing opportunities for learning founded on their intrinsic prospective and inborn potential for learning. For this, teachers require communication as well as planning and organisational skills, so that they can generate positive and constructive teaching-learning surroundings at their own institutions as well as a suitable and proper framework for cooperation in the social environment.

## Conclusion

The relation between sustainable development and education can be summarised as follows: sustainable development is part and parcel of a common educational task, intended to empower the young generation to devise their situations of life on a more humane level. It is founded on an educational thought that concentrates on the self-development and self-determination of human beings as they act together with, and reflect on, the world, with others, and with themselves. Education concerns the capability to contribute to the design of society in a responsible way in terms of sustainable future development. In the context of sustainable development, learning is equal to tackling problems of how to sustainably form the future in existing fields of action. This comprises of observation, analysis, assessment and design of a given context in creative and cooperative processes. Teachers, pupils, students and researchers mutually explore interrelations and options for acting; they get involved and reflect on action taken. The UN Decade of Education for Sustainable Development is an occasion to encourage active initiatives on education and sustainable development in its diverse manifestations such as environmental education, citizenship education and many others. It can present a “forum” for exchange, reflection and cooperation on the universal path towards a sustainable future. Intervention and critical reflection are the indispensable cornerstones.

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