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Handout 1

Teaching for sustainable action and decision-making necessitates the promotion of special competences

**Ideas, experiences and findings from a
research project in Switzerland**

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Effective Learning for Sustainable Action

Teaching for sustainable action and decision-making requires promotion of specific expertise

Handout 1

Sustainable development: Term, requirements and functions of education in the context of sustainable development

Excerpts from: Di Giulio, A., Künzli, Ch. (im Druck): Partizipation von Kindern und Jugendlichen im Kontext von Bildung und nachhaltiger Entwicklung. In: Quesel C., Oser F. (Hg.): Teilnehmer-Mitteiler-Mitentscheiden. Probleme und Chancen der Partizipation von Kindern und Jugendlichen. Zürich, Chur. Rüegger Verlag.

1. The idea of the sustainability

The expression 'sustainability' is fundamentally recognized both on a national- and international level as a guideline for the development of human society. The terms 'sustainability' and 'sustainable development', however, are now used in a nearly inflationary manner to describe diverse conditions. In addition, there is no agreement regarding the precise aims of sustainable development.

According to the United Nations, the idea of sustainability is the expression of an optimistic attitude (see Di Giulio 2004: 307f). It should be realizable, i.e. not be a utopian scheme, but should still proceed from a vision of the future. The entire human society is to participate in designing a vision of the future that respects and unites the interests and perceptions of all. The idea of sustainability is to represent a superordinate guideline for the development of human society, permitting understanding of the environment and developments (social and economic) as a unit. Sustainability refers to the entire human race and makes available a perspective that takes into consideration not only the present population but also future generations.

In the understanding of the United Nations, 'sustainability' and 'sustainable development' have the following meaning (ebd.: 308):

- 'Sustainable development' expresses that the global, regional and national development of human society has to be aligned to comprehensive, superordinate aims that satisfy the (basic) requirements of all humans – current or future – and ensures good living conditions for all humans.

- 'Sustainability' characterizes the condition that a sustainable development seeks to achieve, i.e. the objective of a sustainable development. This condition is accomplished when all humans can satisfy their (basic) requirements and their desire for a good life. Simultaneously, this condition must be secured for future generations.

With their comprehensive proposal, the United Nations shaped a meaning of 'sustainability' that differs from the understanding of the term as used in everyday speech, forestry and ecology (see ebd.: 305f): In *the understanding of everyday speech*, 'sustainability' tends to signify that something is durable, continuously effectively etc. In *the understanding in forestry*, 'sustainability' more or less means that the management of a forest should aim to ensuring that the continuous and highest possible use of a forest should be guaranteed in the long term (for future generations). In *a devolved forestry understanding*, 'sustainability' approximates to the management of a certain ecological system or certain resources aiming to ensure long term functioning of this ecological system or resources in the best possible way (for future generations). Finally, 'sustainable' in *an environmental* understanding approximately means that the management of the collective natural environment must aim at safeguarding the natural resources as a material basis for long-term human development. Moreover, 'sustainable development' is understood to be a development that takes care of preserving *natural resources altogether* for the long term (for future generations).

Dependent on how one proceeds with the understanding of sustainability, the superordinate aim is different. This again affects significantly the choice of tangible objectives and strategies for consideration. The different meanings of 'sustainability' and 'sustainable development' are related but not identical. Clear separation is primarily a requirement for terminological purity and is also relevant in practice. Since both the present demands for an education that promotes sustainable development and the demand for the inclusion of children and adolescents into the processes of sustainable development mainly rely on documents of the United Nations, it would appear to be appropriate to use the understanding of sustainability of the United Nations as a basis for these topics. As a result, further considerations in this lecture are based on this very understanding of sustainability.

If the term of sustainability, as defined by the United Nations, is to be applied to overall concepts, strategies, programs, projects etc., or if the term is to be taken up by these, the following requirements must be fulfilled so that the explanations for the idea of sustainability given in the United Nation's documents are taken seriously (ebd.: 309ff):

- *Vision/future draft*: A draft must be drawn for the future that states the conditions aspired to for the future of the world. In particular, the future draft must define the (basic) human needs that must be satisfied and must contain information regarding the nature of the 'good lives' for all humans for which it is aimed.
- *Implementation through objectives that are verifiable*: The future draft must promote the drafting of strategies, specify measures and evaluate their

success. As a result, the target conditions for the future of the world must be ready to function in the form of verifiable objectives and must also apply nationally, locally and relate to particular sectors. These objectives (and corresponding criteria and indicators) must be deduced from the future draft by a process of deduction.

- *Long-term:* The future draft and objectives must contain long-term perspectives and must refer especially to future generations. The specific questions that must be answered are particularly the definition of (basic) requirements relating to future generations and the choices and possibilities for course of action that are to be retained for future generations.
- *Global:* The future draft must refer to all mankind. This also applies to the objectives that are deduced from it for at least a medium level of implementation. Conversion of the objectives at national level or for particular sectors must be based on drafts for the future and global objectives.
- *Integration of the dimensions environment, social welfare and economics:* The dimensions of environment, social welfare and economics must be taken into account on an equal level and as an integrated approach. The three dimensions are objectives aimed for by all society members. These result from the requirement to view environment and development as a unit and from the assumption that development embraces a social and an economics dimension. ¹
- *Preservation of the dynamics:* The world-condition aimed for that is outlined in the future draft must be understood as being a dynamic process, of which the specified objectives must be modifiable. ²
- *Participation:* In principle, the future draft and its objectives on a global, national and local level must be formulated with the participation of all humans. This applies both to the identification and analysis of problems and for the definition of measures. The aim is to obtain a global, national and local consent of all humans in the sense of a common interest and a common perception.

¹ Occasionally, the dimensions of economics, social welfare and environment are mistakenly compared to groups of participants and their individual concerns. This, however, is inadmissible – in order to do justice to the demands that result from the concept of sustainability, objectives that apply to all of society must be apparent in each of these dimensions (and not just objectives of a certain group of participants).

² The idea of sustainability is a regulatory idea that is independent of the basic concept (see Minsch et al. 1996). The aspired condition of sustainability is not defined and must be implemented as objectives on different levels. This implementation cannot take place once and for all, but must be changeable in the course of time. Differentiation between the idea of sustainability and the implementation of this idea in the form of operational objectives is, therefore, very important. The frequently expressed complaint regarding the heterogeneity of the meanings of 'sustainability' often does not at all relate to the conceptual level but to the level of implementation, i.e. the tangible aims that can be strived for and the strategies needed for to their implementation – in these cases, the complaint regarding confusion between the idea of sustainability and its implementation (s. Di Giulio 2004: 340ff).

- *Consideration of consequences:* When measures to reach objectives are defined, the consequences of these measures must always (as far as possible) be disclosed and appreciated, taking into account the background of the future draft and its objectives.
- *Scientific founding:* Future draft and aims must be formulated as a basis from the best available scientific knowledge and in co-operation with scientists. The uncertainty of scientific knowledge must, where appropriate, be balanced against the danger of irreversible (environmental) damage.

In this absolute formulation, these requirements are obviously difficult - and for some parts impossible - to satisfy. This is not only for political or organizational reasons, but also because they go hand in hand with a number of serious, unanswered questions. These range from the definition of 'the good life' (taking into consideration future generations), the realization of the implied fundamental condition of uninhibited dialogue between all humans to the unresolved relationship between global- and local aims and the substantiation of evaluation criteria, e.g. for solving problems regarding conflicting aims. In-depth discussion concerning these difficulties in this context is impossible (detailed reference Di Giulio 2004: 316ff). They are, however, (still) no reasons to lay aside the United Nation's idea of sustainability; this idea enables an integrated and comprehensive view of the development of human society and incites an intercultural discussion on the definition of these development objectives and on the factors that constitute a good (human) life. As a result, it encourages thought by society on international, national and local level and enables an offensive approach regarding conflicting objectives. Finally, it requires the generation of long-term visions and, as a result, a conscious and active means of shaping our future. If the idea continues to be pursued, however, the open questions and difficulties will have to be addressed and solutions will need to be found.

2. The functions of education in the context of sustainable development

It is obvious that there is a wide variety of existing views regarding what exactly education should achieve concerning desired achievements in the context of sustainable development and also the consequential implications of embodying the idea of sustainable development in the education system. This is, for example, apparent in the explanations given by UNESCO concerning the aims of the World Decade "Education for Sustainable Development" (www.unesco.org) or, for Switzerland, in the "Strategy Sustainable Development" of the Federal Council (Swiss Federal Council 2002). The aims are both the promotion and improvement of basic training and the realignment of existing education programs. The objectives are the advancement of both consciousness and understanding concerning sustainability by all of society and the training of workers using tangible objectives of sustainable development. Objectives like these cannot be realized through identical measures and they are also not necessarily aimed at the same participants. In order to compile strategies that reach the objective and to enable their effective implementation, the

diverse function that education in the context of sustainable development should fulfill, must therefore be clearly separated.

For the present discussion, there is differentiation between five functions that should be perceived by education or educational institutions (schools, universities, vocational schools etc.) regarding sustainable development. These functions cannot be completely separated and are inter-connected. As a result, individual projects and programs cannot usually be reduced to just a single one of these functions. Since, however, they are not congruent with one-another, are specific to different strategies for conversion and the need for action differs between countries (depending upon the function), their analytical separation is meaningful:

1) Education – a tangible objective of the vision for sustainability

In most diverse documents of the United Nations, reference to education is a basic human need and, as a result, according to the United Nations, a necessity that is part of a good human life. Reference is made in particular in the general declaration of human rights of December 10th, 1948, in the international pact on economic, social and cultural rights of December 16th, 1966 and in the international pact on civil and political rights of December 16th, 1966. To that effect, in the context of a sustainable development, the implementation for all humans living at present and in the future of securing their ability to take up their right to education is paramount. From this point of view, education is one of the established (social) objectives of a sustainable development.

2) Education – procurement of cultural techniques as a precondition of sustainable development

During their meeting in 1998, the Commission on Sustainable Development (CSD) of the United Nations expressed the view that cultural techniques, such as reading and writing acquired within the context of a good "basic education", are a prerequisite for the participation of humans in decision-making processes in the context of a sustainable development. In one of the reports of the General Secretariat of the United Nations, this is even called a *conditio sine qua non* (E/CN.17/1998/6/Add.2: II.2.), because "basic education" prepares humans "to participate in shaping a sustainable future" (ibid.: IX.20). From this point of view, therefore, education is a necessary (although not yet sufficient) condition for sustainable development. It creates, for example, the pre-conditions that are required as a basis that enables participation.

3) Education – political sector and institution for implementing the objectives of sustainable development

In the Agenda 21, for example, education is considered to be one of the political sectors that must be changed with regard to sustainable development. Thus, for instance, there is the explicit demand for implementing equal rights for both sexes in education. In addition to the objectives that refer explicitly to the area of education, the Agenda 21 and more recent action plans, include, however, a number of objectives

that are not limited to certain areas or institutions but focus on the whole of society and all their institutions. These include the harmless disposal of wastewater, the creation of leisure facilities for children and young persons, efficient, transparent and predictable administration and decision-making and also the careful dealing with natural resources. The political sector of education, together with schools as an institution, as well as all other sectors and social institutions, are called upon to contribute to sustainable development by striving to implement objectives of this nature (see also CEP/AC.13/2004/8). From this point of view, education is, therefore, a part of human society that must undergo changes for sustainable development to be realized. The participation of educational institutions in the processes of the Agenda 21 is also part of this context.

4) Education – measure for realizing certain objectives of a sustainable development

In the opinion of the United Nations, education is a means for shaping opinions. It is able to promote the desire for- and insight into the necessity for a sustainable development. According to the United Nations, it serves to acquire abilities that are needed to achieve the tangible objectives of a sustainable development (e.g. in the context of technologies for the management of natural resources). Moreover, education is also considered to be an important element for reaching certain social objectives that are stipulated in the Agenda 21 (e.g. securing of employment and income). From this point of view, education is an instrument that is particularly suitable for realizing certain defined objectives of a sustainable development.

5) Education – procurement of specific expertise for realizing a sustainable development

In addition, the General Secretariat of the United Nations formulated demands on education from which it is evident that education must enable humans to deal with the requirements and challenges that are connected with the concept of sustainability (E/CN.17/1998/6/Add.2; see also CEP/AC.13/2004/8). Among others, these demands include the following: Education is to promote critical thought regarding one's place in the world and to contemplate the implications of sustainable development for individuals and their society. Education is to enable the compilation and assessment of visions of alternative development paths and plans for life. It should also mediate the expertise for negotiating and justifying decisions between different future drafts, for working out plans for desired visions to be realized and for active and constructive participation in corresponding social processes (E/CN.17/1998/6/Add.2: X.A.24. and XIII.36.). Education is, therefore, from this viewpoint, an adequate condition for a sustainable development. It should enable humans to design the specific processes that are necessary regarding the realization and further development of the idea of sustainability and simultaneously satisfy the requirements that result from this idea.

Selected literature

- CEP/AC.13/2004/8 (2004): Draft UNECE Strategy for education for sustainable development. United Nations, Economic and Social Council, Economic Commission for Europe, Committee on environmental policy. Second regional meeting on education for sustainable development, Rome, 15-16 July 2004.
- Di Giulio, A. (2004): Die Idee der Nachhaltigkeit im Verständnis der Vereinten Nationen. Anspruch, Bedeutung und Schwierigkeiten. Münster: LIT Verlag.
- E/CN.17/1998/6/Add.2 (1998): Capacity-building, education and public awareness, science and transfer of environmentally sound technology. Report of the Secretary-General. Addendum. Education, public awareness and training.
- Minsch, J./Eberle, A./Meier, B./Schneidewind, U. (1996): Mut zum ökologischen Umbau. Innovationsstrategien für Unternehmen, Politik und Akteurnetze. Basel: Birkhäuser Verlag.
- Schweizerischer Bundesrat (2002): Strategie Nachhaltige Entwicklung 2002. Bericht des Schweizerischen Bundesrates vom 27. März 2002, Bern.