

Different indicators for different contexts?

Developing indicators for ESD in Germany

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Indicators for Education for Sustainable Development: Engaging the Debate

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General Functions of Indicators – the German Discussion

The issue of indicators for educational processes surfaced some years ago when the first PISA results were published. These results were not favourable for the German school system. Subsequently a discussion started about better and more reliable instruments to monitor educational inputs and especially outcomes. Since then, the development of standards and indicators has been focused on areas like reading, mathematical and science competencies. For these purposes three areas for indicatorisation have been discussed:

- *Context qualities* area basically encompass inputs into the educational system (e. g. funding), institutional regulations (e. g. central curricula, school laws), and the framework provided by political and social developments.
- *Process qualities* are instruments that control and enhance educational processes. Examples are steering groups in schools for the implementation of innovations or support structures like teacher training and research facilities for evaluation.
- *Outcome qualities* are defined as results and effects of educational processes, e. g. improved competencies of young people, behavioural changes etc.

These considerations set the stage for a variety of potential functions attributed to educational indicators (the following list is not complete):

- Indicators as „*warning system*“ for favourable as well as unfavourable developments.
- Indicators as tool for *self-evaluation* in educational institutions and for classroom practice.
- Indicators as a support instrument for further *implementation and dissemination* of educational processes.
- Indicators can contribute to a *stabilisation of innovative developments*. One of the major issues in this respect is fostering the knowledge and acceptance of innovative developments.
- Indicators can provide a *measurement for the implementation degree* of innovations.

ESD is a relatively new and a developing area. At this time, we think that indicators cannot serve all the above mentioned functions. For the current state of ESD a concentration upon three functions seems suitable: Indicators as tool for self-evaluation, as support instrument for implementation and dissemination and as contribution for the stabilisation of ESD, providing informations about knowledge and acceptance of the ESD concept.

Different Indicators for Different Contexts in a Fragmented Educational System?

Germany has a highly fragmented educational system: Education is a matter of the member states (Laender) of the country. There are only very limited possibilities for an interference of the federal level. Within the Laender, the responsibility for different parts of the educational system is often scattered among different ministries. School equipment and maintenance of buildings is paid for by the municipalities ... This is in short the background for innovative developments such as ESD in Germany.

Therefore we have to think about an indicator system that reflects three levels: the macro level (educational systems and relationships on Laender level), the meso level (educational institutions such as schools), and the micro level (lessons, classes, classroom practice):

- On the macro level, we need indicators that take into account the responsibilities of the German states for education and the relationships among them and to the federal

level. Indicators could be progress in implementation efforts, ESD in central curricula and federal programmes, regional and national support structures.

- Possible indicators on the level of educational institutions (e. g. schools, universities) could be the measures taken to establish and stabilize ESD within the institutions.
- On the level of classroom practice indicator areas could be time allocated for ESD issues, forms and methods of teaching, perceived learning successes - the viewpoints of teachers and of pupils as well. Also the measurement of pupils' performance could be located on this level.

A link between these different levels could be the primary functions of indicators: tool for self evaluation, support for further dissemination and implementation, support for an improved understanding of the basic concepts of SD and ESD as well. Each of the macro, meso and micro level could contribute to specific areas with some overlappings. Additionally, some thoughts should be spent about the interactions between these levels.

Macro level	Input/ context	Process	Out-comes
support for an improved understanding of the basic concepts of SD and ESD	X I	X I	
Transfer (implementation and dissemination of ESD)	X I	X I	
self evaluation (with reference to SD competencies of pupils, social, economical and ecological aspects and innovative methods (e. g. situated learning, participation)		(X)	
Meso level	Input/ context	Process	Outcomes
support for an improved understanding of the basic concepts of SD and ESD		X	
Transfer (implementation and dissemination of ESD)		X I	
self evaluation (with reference to SD competencies of pupils, social, economical and ecological aspects and innovative methods (e. g. situated learning, participation)		X I	(X)
Micro level	Input/ context	Process	Outcomes
support for an improved understanding of the basic concepts of SD and ESD			X I
Transfer (implementation and dissemination of ESD)		(X) I	
self evaluation (with reference to SD competencies of pupils, social, economical and ecological aspects and innovative methods (e. g. situated learning, participation)		X I	X I

X = core area for level specific indicator development; (X) = possible area for indicator development

I = Preliminary instruments available

There are different amounts of informations and preliminary instruments available. Finally, a brief SWOT analysis may highlight the overall situation:

- Strengths: Informations and preliminary instruments available for many indicator areas on the different levels, ESD still a part of political consideration.
- Weaknesses: Fragmentation of the educational system, lack of performance monitoring instruments.
- Opportunities: Continuation of national ESD programmes, UN-Decade on ESD.
- Threats: Lack of funding, heterogenous interests in indicatorisation.

Indicators in Nonformal Settings

Parallel to the development of ESD indicators for formal education there are some thoughts about indicators for the non-formal sector on a very early stage. Some glimpses: indicators discussed are such as internal and external communication structures, educational services for members of SD initiatives, cooperation with formal institutions. Much more systematic research seems to be necessary on ESD in nonformal settings in Germany.