

Learning and teaching for a sustainable living Examples of environmental education in Austrian Schools

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Environmental Education (EE) in Austria

After the second world war economy growth was synonymous for wealth: the industrialisation of agriculture should avoid hunger, cars for everybody stood for freedom, television for everybody opened a new view into the world. Everything seemed to be reachable and viable. In the 70ies it could be seen that our resources are limited. A lot of environmental problems like dying wood, acid rain or chemistry accidents appeared. The scientist of the Club of Rome discussed the borders of growth and made clear that the protection of nature and environment needed a change in thinking. This fact was one of the starting points of environmental education as it is supporting that change (Linder 2008). Basically Environmental Education launched in the 1970ies was a policy instrument for solving environmental problems on the long-term. The major issues at this time were waste separation, recycling, saving water and energy (Rauch et al 2006). As a major audience of Environmental Education schools and pupils were addressed as they were seen as the creators for a sustainable future.

Support at federal level opened the way for teachers to work on environmental issues in schools. Since 1979 Environmental Education has been integrated into the curricula of general education and since the 1990s also in the vocational school system in Austria. The constitutional decree “Environmental Education in Schools” (edited 1985) was a major stimulus for the development of EE in Austria based on EE-oriented project teaching. The decree outlined the main aims of Environmental Education: Action competence and experiencing democratic attitudes (Pfaffenwimmer 2005, Steiner 2007). Focusing on the action perspective in Environmental Education means that students as part of the learning process prepare and take actions together with their teachers to solve or counteract the environmental problems they are faced with. This action-oriented approach in EE which focused on the development of students’ ability to act and bring about changes, has consequences in terms of demands for a certain kind of environmental knowledge and insights that need to be developed by the students. We distinguish between our types of knowledge on environmental issues.(see figure 1) (Mogensen et al 2005).

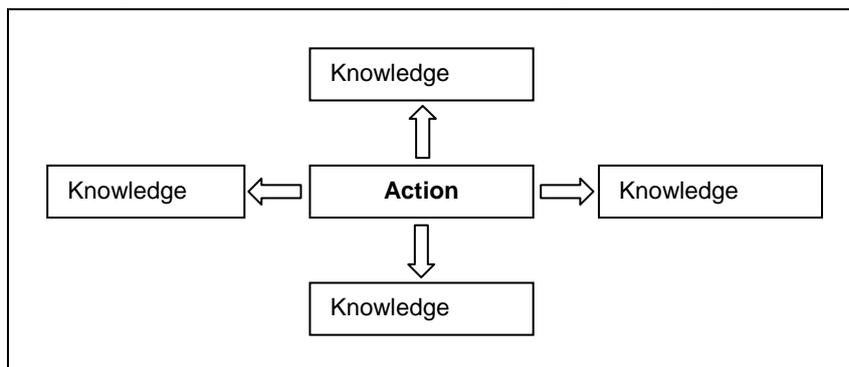


Figure 1: Action knowledge in Environmental Education (Mogensen et al 2005)

Schools as centres for environmental education and sustainable living

Working on environmental topics has a long tradition in Austrian schools. Nature experience, improving knowledge on environmental topics and taking action based on environmental awareness are central aspects of Environmental Education in schools (Linder 2008). The focus gradually changed from dealing with environmental issues in teaching into environmental projects. These environmental education projects, however, frequently remained on an actionist level: single actions of one teacher, often additional to everyday school lessons (Rauch et al 2006, Steiner 2007).

Initiatives like the ECOLOG-School Programme aim at supporting schools to implement a whole school approach on environmental issues:

- From a single action/project to an „ecological every day life“ in school: small steps to the ecological school based on the reduction of emissions (waste, traffic, biological and regional food ...) and the economic use of resources (energy, water saving, gardening, ...)
- Integrating the social environment (school climate, ...)
- From single activists to school teams among all partners in school: to keep the process going on, to support school development
- Participation as guiding principle
- Cross-curricular learning and teaching
- Community based learning: school as partner in the community
- Working together with NGOs and experts (Pfaffenwimmer 2005)

Based on the sustainable development discussion it became clear that dealing with ecological aspects of sustainability is not enough. The connection to social and economic aspects of sustainability is needed for deeper insights combined with global questions e.g. gardening in the school yard needs the connection to global food production, fair trade, personal life-styles and their consequences on global, social and economic aspects. Thus environmental questions are no longer concerns for biologists or natural history alone, but also affect social, economical and political interests. Therefore, education about environmental issues has to be inter-disciplinary and exemplified in real-life-situation (Kyburz-Graber et al 2006).

Therefore Environmental Education is more and more discussed in the context of Education for Sustainable Development (ESD). The UN-Decade on ESD (2005-2014) should support initiatives in this field world wide and centres the question: “What do we have to learn and which competencies are needed to build up a sustainable future for us and all global citizens?” Critical thinking, solidarity and cooperation, participation and confidence, solving problems are such skills. Working on EE especially based on a whole school approach can support these skills (Steiner 2008).

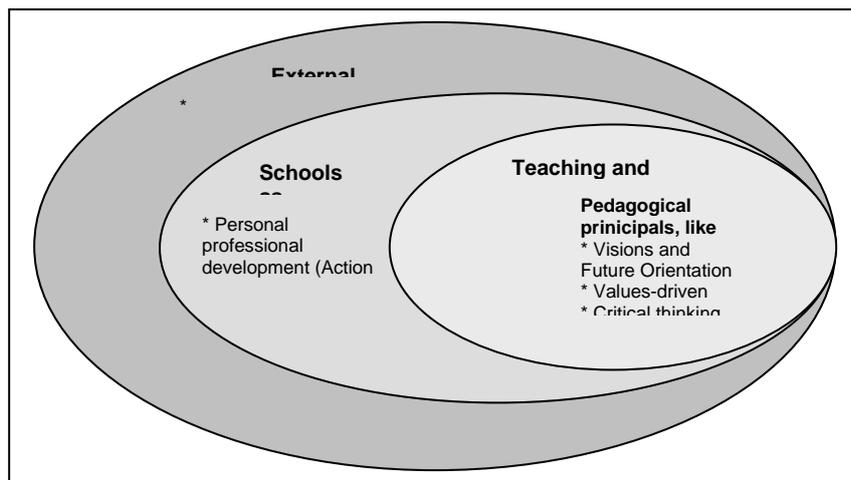


Figure 2: Action fields for schools on Education for Sustainable Development (Steiner 2006)

School programmes and school networks as a supportive structure

To support Austrian Schools to implement Environmental Education and provide them for ESD the ministry of education implemented the programme “Ecologisation of Schools – Education for Sustainable Development (ÖKOLOG)”.

ÖKOLOG is the first and main Austrian programme for schools at the interface of Environmental Education and school development. Its basis is the approach to EE and ESD introduced above and it takes into account the challenges and opportunities of school autonomy and school programme development. Schools define the ecological, technical and social conditions of their environment and, on the basis of these results, define objectives, targets and/or concrete activities and quality criteria to be implemented and evaluated. Students as well as all the other actors at school should be involved in a participatory way and collaboration with authorities, businesses and other interested parties is encouraged. Over 200 schools are members of the ÖKOLOG School Network in Austria. Central support is provided by the Ministry of Education, Arts and Culture and by the FORUM Environmental Education. At the regional level, ÖKOLOG schools are supported by the ÖKOLOG regional teams, whose major task is to organise further education and training, and to promote the exchange of experiences between schools in order to derive maximum benefit from the pool of competence that is accumulating at the various schools.

The University College for Agrarian and Environmental Pedagogy Vienna also tries to implement EE and ESD based on this whole school approach of ÖKOLOG. A major topic is the implementation of an ecological every day life with strong participation of students (compare Posch 2006). The students take part in improving the environmental situation at the college and in supporting the institution to gain the national environmental performance award “Umweltzeichen” – a well-known Eco-Label especially in one elective course with strong connection to the whole organisation. Therefore waste separation, new forms of teaching and learning based on ESD, biological food or recycling paper are implemented.

Awareness raising campaigns e.g. for saving electricity or reducing traffic are prepared by the students. When the students finish their studies and become teachers in different vocational schools they are well prepared for starting different measures for ECOLOG or the environmental performance award.

Environmental Education and teacher training

To support environmental education and programmes in this field like ECOLOG or the Eco-Label it is needed to integrate Environmental Education and Education for Sustainable Development into teacher training. In the field of advanced training and further education for teachers we can find some offers like the ECOLOG summer academy, the “National Teacher Trainer Course on ESD – BINE“ and different seminars (Steiner 2008). In initial teacher training there are some singular attempts on these topics till now. This situation will change as the University College for Agrarian and Environmental Pedagogy Vienna will offer a bachelor study programme on environmental pedagogy starting in autumn 2008.

New approaches in the University College for Agrarian and Environmental Pedagogy

The University College is situated in Vienna and stands for educational programmes of excellent quality and innovation. Since it was re-established in 2006 the focus on agrarian pedagogy was enlarged by environmental pedagogy. This topic was on the one hand integrated in the Bachelor study programme “Agrarian Pedagogy” (described above) and on the other hand a completely new Bachelor study programme “Environmental Pedagogy” was implemented. This new programme starts in October 2008 and gives thirty students the possibility to become environmental educators and advisors.

The new study programme “Environmental Pedagogy” in detail

Persons who want to get active for the environment and sustainable development need wide expertise but also broad communication and pedagogical skills. The new Bachelor Study programme combines pedagogical fundamentals with specialised content in the areas of environment and sustainable development. The study programme lasts for three years and ends with the Bachelor of Education.

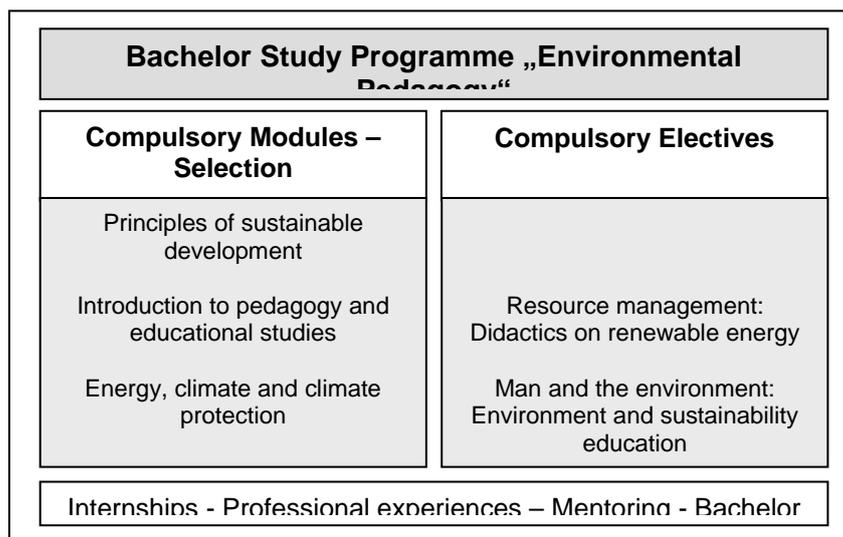


Figure 3: “Environmental Pedagogy” – a new Bachelor Study Programme

A major column in the study is a mentoring programme. It supports the students to get very early professional experience in different working fields from schools to different organisations like NGOs. So they can build up contacts to potential employers and get to know networks and the working style of their mentors.

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Interesting Websites

- Eco-Label Austria: www.umweltzeichen.at/schule
- ECOLOG School programme Austria: www.oekolog.at
- FORUM Environmental Education supports EE in Austria: www.umweltbildung.at
- Eco-Schools in Europe: www.eco-schools.org