

General overview of Environmental Education in Germany, France, the United Kingdom, Spain and Finland: *Developments and implementation in curricula*

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1. EU-policy background

In 1987, the Brundtland-report on sustainable development was published. In 1988 the Council of Ministers adopted a resolution stating, that the objective of environmental education is to increase public awareness of the problems as well as the solutions in this field. In 1993, a Resolution the European Parliament calls on Member States and the Commission „to include the environmental dimension ... in all aspects of education at all levels“. In the „Europe 2020“–strategy approved by the EU in 2010, a 10year strategy aiming at a “*smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion*” has been set up. However, in this strategy no specific reference to environmental education (EE) is given.

2. Environmental Education in selected European Countries

2.1 Germany

2.1.1 Development of Environmental Education

Environmental education (EE) in schools started in the 1970s with main emphasis on environmental problems such as water and air pollution or waste. Since the 1980s EE was already fully implemented in school teaching. Following the Earth Summit in Rio in 1992 the main focus of environmental education shifted towards education for sustainability. Environmental issues were no longer seen as a scientific problem alone, but being connected to social and political issues. Current programs of environmental education are based on the UN Decade of Education for Sustainable Development 2005 – 2014.

2.1.2 Environmental Education in the curricula

In the curricula of the „*Bundesländer*“ (federal states) EE is implemented from the primary to the upper secondary level. In the curricula / guidelines, the following age differentiations are listed. In primary school, the basis for an environmentally responsible behaviour shall be provided. At this stage, the children discover first interrelations between their natural and their socially shaped envi-

ronment and begin to value nature. In secondary school, the different subjects discuss environmental issues in more detail. However, interdisciplinary discourse and interlinkages between the subjects are also of importance. Here, isolated examples shall be transferred to complex problems and placed into their overall context.

In the primary level EE is part of the “*Sachunterricht*” („social studies“ including local geography and history, basics of natural science and technical basics etc.).

In the secondary level EE is generally seen as an interdisciplinary topic , but it is an integral part of the curricula for natural sciences (biology, chemistry, physics) as well as humanities / social studies. Additionally, EE is part of the curriculum of the „intermediate“ school subject geography.

As a „cross-border“ topic EE may not only taught in the class, but also using the project method.

2.2 United Kingdom

EE in school teaching was introduced in the 1970s. However, EE had a weak position until the 1990s. In the follow up of the Earth Summit in Rio 1992 sustainable development was incorporated into school teaching. Furthermore, the „Sustainable Development Action Plan“ 2008 – 2010 requires teaching on sustainability including environmental issues.

On the level of curricula, a National Curriculum“ for England & Wales in 1988 with EE as a superordinate element was introduced. In 1999, „Education for a sustainable development“ became part of the „National Curriculum“. Education for a sustainable development is implemented in teaching of geography, citizenship and science.

2.3 France

1977 “*l’éducation à l’environnement*“ (EE) was firstly implemented in schools in several subjects such as *Éducation civique, juridique et sociale* (social and legal studies), *Économie-Gestion* (economy), *Histoire-Géographie* (taught together in France), *Sciences physiques et chimiques* (physics, chemistry), *Sciences de la vie et de la terre* (biology, natural history).

In 2004 “*l’éducation à l’environnement pour un développement durable*” (EE for sustainable development) in the subjects “*sciences de la vie et de la Terre* (S.V.T.)” and “*histoire-géographie*” was anchored in school teaching.

In 2007 the former EE was changed to “*l’éducation au développement durable*” (education towards a sustainable development)

2.4 Finland

Finland has a long history of EE (starting in the 1960s as nature studies). Nowadays, EE is taught both as a discrete subject („environmental studies“) and via thematic interdisciplinary approaches. Since 2001, the main focus of EE is on sustainable development. In EE a change from learning factual knowledge to learning by doing – changing behaviour and raising awareness can be observed.

2.5 Spain

First attempts to implement EE in the Spanish curriculum took place in 1988: In 1990, EE became legally implemented in the Spanish curriculum. EE is taught interdisciplinary and not as a new subject. High variability of EE-teaching can be observed within schools in Spain, as schools have a high degree of freedom to organize themselves.

3. Conclusions

Environmental Education (or, more recently, education for sustainable development) is a quite young phenomenon in Europe. In the 1960s EE could be equated with ecology and nature studies. In the 1970s EE-teaching in Middle Western Europe developed to teaching on “environmental protection” issues (water pollution, waste etc.). Since the late 1980s / early 1990s the issue of sustainable development became more and more important in EE, thus leading to a broader approach. A schematic outline of the development of EE gives figure 1 (see following page).

In the countries studied, EE is specifically implemented in the curricula.

Nowadays, EE (or rather education for sustainable development) is not limited to (natural) science, but includes humanities and social sciences. Geography may play a crucial role in EE, as it comprises both perspectives from natural and social science.

EE is generally taught by interdisciplinary approaches, which may distribute the workload in schools more evenly on teachers with different educational background. However, as EE is not a subject of its own, it might not be taught intensively enough. A possible solution is to set up obligatory time frames.

EE takes place not only in normal class teaching, but in terms of school projects, extra-curricular activities and environmental centres.

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	Teaching Approaches	Trends
1960s	Nature study Field work	Emphasis on physical aspects of the environment
1970s	Outdoor education Field studies centres Conservation education Urban studies	Use of natural environment for educational purposes; growth of outdoor centres; teaching about environment and study of the built environment.
1980s	Global education Values education Action research Development education	Wider vision of environmental issues; inclusion of political dimension; clarifying of values through personal experience; community and pupil-led problem solving involving fieldwork.
1990s	Socio-environmental education Education for sustainable development	Use of new communication technologies in problem-solving approaches aimed at the resolution of socio-environmental problems; participatory action – changing behaviours.
2000s	Partnership education	Pupils, students, teachers, NGOs, politicians working together to identify and resolve socio-ecological problems.

Fig. 1: Historical development of Environmental Education (adapted from Murphy, C. (2000): Environmental Education 2020. A Personal Vision. In: Gardner, J. and Leitch, R. (Eds.) (2000): Education 2020: A Millennium Vision: Issues and Ideas for the Future of Education in Northern Ireland, pp136-144, Belfast: Blackstaff Press: