European SWOT Analysis on Education for Environmental Citizenship

Edited by

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List of Main Abbreviations

CE: Citizenship Education
CoP: Community of Practise
DSP: Dominant Social Paradigm
EA: Environmental Attitudes
EB: Environmental Behaviour
EC: Environmental Citizenship
ECn: Environmental Citizen
EE: Environmental Education
EEC: Education for Environmental Citizenship
EfS: Education for Sustainability
ESD: Education for Sustainable Development
FCN: Frequency of Contact with Nature
NC: National Curriculum
NEP: New Environmental Paradigm Scale
PSAs: Public Service Announcements
SE: Science Education
SSIBL: Socio-Scientific Inquiry-Based Learning
STEM: Science Technology Engineering & Mathematics
TPB: Theory of Planned Behaviour
TPD: Teacher Professional Development
VBN: Values Beliefs Norms

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Foreword

Environmental citizenship is crucial for the success of any environmental policy. Sustainable development, a circular economy, a low-carbon economy, and a bio-economy require an effective citizen engagement. Citizens are called upon to adopt environmental attitudes and behaviours, make green choices, increase civic participation, and to be aware of and apply their environmental rights and duties. The contemporary environmental crisis with climate change, biodiversity loss, air pollution and all other local and global environmental problems demand an education that is capable of empowering environmental citizens. Education plays a key role in shaping future environmental citizens; nobody is born environmental citizen but anybody can become so by education.

This report presents a SWOT Analysis of an integrated and holistic type of education in Europe "Education for Environmental Citizenship". The SWOT anlaysis is presented in two levels. In Part A a synthesis of the results of 157 experts from 28 European countries are presented. In Part B the reader can exlore the 23 European country reports.

It is important to clarify that this reseach regarding SWOT analysis was undertaken before any development on the concept of Education for Environmental Citizenship such as common definition and the pedagogical approach. In this fact it illustrates the experts' opinion in the different contexts through out Europe.

We hope that European stakeholders will find it useful.

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European Network for
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10. SWOT Analysis of Education for Environmental Citizenship

Short Hungarian report

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Abstract: Environmental education and citizenship studies are not a focus of Hungarian primary and secondary education. As a consequence, Education for Environmental Citizenship is an almost unknown and neglected topic. In our report we present its main strengths, weaknesses, opportunities and threats, analysing the relevant policy documents and structured interviews conducted among experts, decision-makers, scientists and practitioners. The picture is like a bottle, half empty for the pessimists or half full for the optimist, and Education for Environmental Citizenship could be linked to both science studies and history. The future will show whether experts and practitioners are able to build up these links.

10.1 Introduction: the Hungarian context

Youth in Hungary

As in many other European countries, it is hard to find standardised definitions of 'youth' in Hungary. In a survey called 'Hungarian Youth', the generation between 15-29 years is considered to be 'Youth' and data from Central Statistical also provides information on this cohort. In 2016, 1.7 million people (18 percent of the total population) belonged to this age group, in comparison to 2.1 million in 2001 and 1.8 million in 2011. The decrease of the younger generation is salient. The population loss has been over 400,000 during the last 15 years, a bigger decline than the downturn of the entire Hungarian society. The biggest group is 618,000 youths aged 20-24, 611,000 aged 25-29, and 593,000 aged 14-19 years old. The outmigration of hundreds of thousands of youngsters as well as a general decrease in the total population are the main causes of the negative demographic trend in Hungarian

youth. The Council of Europe international review team states that the most striking challenge is the increase in youth unemployment and those leaving education early, particularly within vocation schools (Youth policy in Hungary 2008).

Methodology

To better understand the role of Education for Environmental Citizenship in Hungary, we conducted on-line questionnaires with professionals, decision-makers, civic activists and practitioners, as the guidelines of the Cost Action recommended.

We received answers from five respondents (teachers, researchers and decision-makers) who were aged between 31 and 50 with higher education degrees. The details of our interviewees can be found in the table below.

An important limitation in our study is that our experts found assessing Education for Environmental Citizenship to be a difficult task. Some of them mentioned beforehand: "I have few ideas about Education for Environmental Citizenship, but more experience in Environmental Education."

Table 10.1 Characteristics of the interviewees.

Gender	Education	Age	Type of Expertise
Female	PhD	41-50	Researcher – Academic from the research field of Environmental Education/Education for Sustainable Development OR Science Education/Citizenship Education
Male	PhD	41-50	Researcher – Academic from the research field of Environmental Education/Education for Sustainable Development OR Science Education/Citizenship Education
Female	Master	31-40	Educator – Teacher in Secondary Education who works in the field of Environmental Education/Educational for Sustainable Development OR Science Education/Citizenship Education
Female	Master	31-40	Decision-maker at a National NGO who works in the field of Environmental Education/Educational for Sustainable Development OR Science Education/Citizenship Education
Female	Bachelor	41-50	Educator – Teacher in Primary Education who works in the field of Environmental Education/Educational for Sustainable Development OR Science Education/Citizenship Education

The legislative background on education is basically the National Core Curriculum (the 110/2012. (VI. 4.) Governmental Decree3) and the Law on National Public Education (CXC law in 20114). Education for Environmental Citizenship is not specifically named in it, however the text refers to Environmental Citizenship explicitly:

"*The [educational] institution has to prepare them [the students] to understand and practice citizens' obligations and rights toward environment.*" (NAT: 10643)

It also refers to environmental awareness and sustainability in two parts of the text (pages 10643 and 10654). In general the text differentiates only slightly between Education for Environmental Citizenship, Environmental Education (EE), and Education for Sustainable Development (ESD); Citizenship Education (CE) has a different character, while Science Education (SE) is discussed separately but in connection with Education for Environmental Citizenship, EE and ESD. The text discusses SE in detail as it is one of the most important subjects in Hungary. The context clearly shows the relationship between SE and EE:

"A man having competence in science is critical toward both pseudo-science, anti-science or anti-technology and both toward efforts placing technology and human needs ahead of environmental sustainability." (p. 10654)

According to the text, SE is the strong basis of EE and the relationship between EE, Education for Environmental Citizenship and ESD is not discussed. CE is linked to legal issues (Citizenship Rights, the Constitution of Hungary and political institutions.5)

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[3] https://ofi.hu/sites/default/files/attachments/mk_nat_20121.pdf
[4] http://www.magyarkozlony.hu/pdf/11446
[5] http://ofi.hu/tortenelem-tarsadalmi-es-allampolgari-ismeretek
http://www.mozaik.info.hu/Homepage/Mozaportal/MPcont.php?bid=MS-2663

The relationship of Education for Environmental Citizenship, EE, ESD, SE and CE

Table 10.2 The relationship between Education for Environmental Citizenship, EE, ESD, SE and CE according to the expert interviews.

	Mean	Modus	Std. Dev.
To what degree (1-5) is Education for Environmental Citizenship similar to Environmental Education (EE)?	4	4	1.224
To what degree (1-5) is Education for Environmental Citizenship similar to Education for Sustainable Development (ESD)?	4.2	4	0.447
To what degree (1-5) is Education for Environmental Citizenship similar to Science Education (SE)?	2	2	0.707
To what degree (1-5) is Education for Environmental Citizenship similar to Citizenship Education (CE)?	3.2	3	1.095

Table footnotes

The experts, the practitioners and the official documents all found that Education for Environmental Citizenship and EE as well as Education for Environmental Citizenship and ESD differ only very slightly, as the table above shows. As a contrary, they see Education for Environmental Citizenship and SE to be quite different. Education for Environmental Citizenship and CE has 3 points on a similarity scale of 5.

Regarding the similarities and differences, some of the experts mentioned that sustainable development could be seen as an introductory course to Education for Environmental Citizenship. One expert pointed out that: "They (EE&SE) have a longer history and teachers' groups identify themselves as 'environmental educators' or 'science educators' but I never heard about any 'environmental citizenship educator'." (…)

It means that EE is very similar to Education for Environmental Citizenship, but EE focuses mainly on environmental problems.

As an expert emphasised:

> Based on the UN Sustainable Development Goal (SDG) 4.7, me personally but also the Hungarian educational policy practice too consider Education for Environmental Citizenship as a part of ESD, as the SDG 4.7 states: 'By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.' So we need Education for Environmental Citizenship for promoting sustainable development.

According to the experts, Education for Environmental Citizenship is not better than any type of education; there is an equal need for ES, CE and Education for Environmental Citizenship within the framework of ESD.

The advantages of Education for Environmental Citizenship

Education for Environmental Citizenship has several advantages. We grouped the experts' arguments into the following typologies:

1. Understanding in-depth environmental problems by combining science studies, social sciences and the students own everyday life. Thus they can prepare themselves for active citizenship.
    An example for this is the following:

    "Students can go beyond understanding environmental problems, they can also understand their role in creating and solving these problems. They get insights and tips to change everyday practices."
    "It helps students to understand the connection between their life and science."

2. Education for Environmental Citizenship can help foster a collaboration of the school system with the local communities. This second strength could be illustrated by the following quotation:
    "*Translating theoretical, scientific knowledge into real world problems.*"

3. Some of them express it as a desire:
    "I can just express what I think would be important: i) Each person first understands why sustainability is important and what the consequences are; ii) they get to know how they can personally contribute to it, what the consequences are of their daily lifestyle on nature and natural resources; iii) they then find the way to contribute at their level; and iv) how to promote and convince others."

4. One of the interviewees emphasised that Education for Environmental Citizenship has a complex approach and argued that this could be an example of how education should work:
    "At the kindergarten we have complex approach: we do not separate the different 'classes'. During the collection of sticks or pebbles, they sing, move, learn about environment and science. They also learn how to act consciously to reduce waste and water usage; and the children's examples influence the everyday acts of the families. These practices are the part of the everyday rituals and therefore may have a long-term effect."

Our experts also presented what Education for Environmental Citizenship could do better than other types of education (EE, ESD, SE or CE).

1. How to act: Education for Environmental Citizenship can help citizens understand how they can make a difference in terms of environmental impacts.

Students often ask: "What can I do? How can I personally contribute to the solution?" The major advantage of this approach could be to show them how they can reduce their ecological footprint by changing their behaviour and influencing the policy agenda.

2. Interest: Education for Environmental Citizenship is more interesting than SE:

   "I think EE is better than SE, because if students are not interested in SE then it is boring for them. Education for Environmental Citizenship and EE bring real world problems closer, but it is still not interesting enough."

3. Similarity: in a complex educational system, Education for Environmental Citizenship, EE and SE effect each other interfere continuously:

   "I do not see much difference. As we use a complex approach, environmental education is not independent from physical education, singing, or story-telling, but is a part of it. But even if I narrow our practices to Education for Environmental Citizenship, I think it is quite similar to EE, ESD and SE (in kindergarten)."

Unique characteristics of Education for Environmental Citizenship

1. Experts could name the emphasis of Education for Environmental Citizenship on behavioural elements.

   "It is more focused on actions, personal involvement, solutions. Some disciplines merely take on a reflective approach and students miss the point on how they can contribute to the solution."

2. The possibility of active participation seems to be an important characteristic of Education for Environmental Citizenship:

   "The participation of students in social processes and co-creation of sustainability policy could be unique in Education for Environmental Citizenship."

3. But similarities are more important than differences:

   "Education for Environmental Citizenship shows how EE can be used in everyday life, but I think that good EE also provides this opportunity."

10.2 Strengths of Education for Environmental Citizenship in Hungary

In this part of the chapter we present the strengths of Education for Environmental Citizenship, using responses from the short questionnaire. It is clear that the respondents do not distinguish Education for Environmental Citizenship from EE:

they see it as a tool to understand environmental problems, local and global environmental processes and to translate theoretical knowledge into everyday knowledge of the surrounding nature.

The views and opinions of the different actors are quite similar. We can identify the following strengths:

1. Transferable knowledge for everyday use. An example of this is the following quotation:

    "They get insights and tips for changing everyday practices."

2. Linking SE to the real world (nature).

    This second strength could be illustrated by several quotations:

    "Translating theoretical, scientific knowledge into real world problems."
    "Engaging students with environmental issues."
    "Going outside with the kids."

    The latter one leads us to the methodological strength of Education for Environmental Citizenship: it shows the theories in practice, links theories to nature almost immediately.

1. Kids are opened to nature and the surrounding world, thus EE and Education for Environmental Citizenship are good tools to teach different scientific subjects outside. As the following quotation proves:

    "Kids are extremely opened to nature. They love bird-watching, collecting anything."

2. This observation helps teachers to fulfil the goals of SE and Education for Environmental Citizenship. It "helps to understand local, national a global political processes, to find constructive solution to deal with environmental problems", and in the long-term it may result in changes to everyday habits.

    As a kindergarten teacher emphasised: "Kids are opened to new information, and follow the example seen in the kindergarten."

10.3 Weaknesses of Education for Environmental Citizenship in Hungary

Experts found several possible weaknesses of EE and Education for Environmental Citizenship:

1. The role of EE and Education for Environmental Citizenship is overestimated.

    "Sometimes we assume that solving environmental problems is a major issue for all, and they will be have to participate in it."
    "I think it overestimates the changes that can be achieved by relying merely on voluntary participation of people in environmental activities."
    "Wishful thinking about how people can be made active in this area."

2. Education for Environmental Citizenship is almost non-existent in Hungary:

"Education for Environmental Citizenship as a separate entity does not exist in Hungary and it is very hard to talk about its weaknesses, as its biggest weakness is its non-existence."

"It is taught in a very short time period: six months during the six years of school, and it is separated from other disciplines."

"It has no recognition as a separate educational area."

3. Teacher education is not sufficient:

"It is a real problem that it is up to the teacher where she makes the emphasis: if she is less experienced or interested in teaching about nature/environment, then it is not in the focus."

"It is boring. It is a buzzword, and students think they know what it is about."

4. Education for Environmental Citizenship should be taught through good practices and personal examples from both parents and teachers:

"Teachers themselves should show good examples of EE."

5. It is not part of the whole school curriculum and is not built into other sciences:

"It is difficult to continue the complex approach of Education for Environmental Citizenship later on."

10.4 Opportunities of Education for Environmental Citizenship in Hungary

Education for Environmental Citizenship has opportunities to improve:

1. It should be more practical:

"Help the younger generations to understand local, national and global political processes."

"Help the younger generations to find constructive solutions to deal with environmental problems."

"It should be clear that it is a part of everyday life."

"Changes in European policy definitely open more opportunities in Environmental Citizenship. Participatory approaches are explicitly preferred."

2. Complex development:

"Work more closely with all disciplines; not only science, but history, arts, etc."

3. Extending over disciplinary boundaries and involving teachers of other disciplines:

"The involvement of colleagues could be stronger."

"To collaborate other educational fields and make it clear that the ultimate goal is a common one: to ensure sustainability of humankind on Earth."

4. Finding the ways of EEC to all schools:

"Developing a curriculum for institutions in urban environment."

One of the interviewees offered a completely new approach by reorganising the structure of the academic year:

1. In Europe, the Water Framework directive (to improve the status of water bodies) and other regulations set obligations for public participation in decision making. This could be better used to trigger environmental education, raising the sensitivity of people toward sustainability.

2. It is very important to raise new generations who dare to express their needs toward decision-makers and know how to do it.

3. Fight to develop the necessary tools and channels that enable society to act in an environmental field. European legislation provides the legal basis for these, but the implementations have to be enforced and pushed.

4. It is very important to show society that a better environment and nature has a socio-economic benefit for everyone.

Experts also showed interesting trends to improve opportunities of Education for Environmental Citizenship:

➢ Teaching methods are more participatory now than 20 years ago. The topic itself requires interactive methods
➢ Students themselves require more participatory methods and they decisively think they can and should make more decisions regarding the curriculum
➢ Innovative learning environments: http://www.oecd.org/education/ceri/innovativelearningenvironments.htm
➢ New education methods
➢ New cooperation among the disciplines
➢ Better technology is available (Internet access)
➢ Companies to offer Education for Environmental Citizenship educational programmes (as the waterworks).

10.5 Threats of Education for Environmental Citizenship in Hungary

According to our expert interviews, there are inner and outer threats to Education for Environmental Citizenship. The main inner threats are assertiveness, being boring and losing its flexibility. There are many more threats from the surrounding world: the neglect of policy-makers, the general changes of the world, and the lack of well-trained teachers.

1. The following quotations refer to the inner threats of Education for Environmental Citizenship in Hungary:

"It should avoid being too pushy, requesting too much policy-related activity from people who are not that active or interested in policy."

"Simple knowledge transfer and forcing students to be involved in activities they are not interested in."

"Trying to be as fast as the everyday lives of students."

"Losing its openness."

"Being hypocritical."

2. The following quotations refer to the inner threats of Education for Environmental Citizenship in Hungary:

"Economic factors: for example, during economic crises the interest towards environmental issues declined."

"Trends in values that cannot be fully influenced by education."

"If it would not became an expectation for educational systems by the different stakeholders mainly the educational policymakers."

"Personal enthusiasm."

"It competes with other sustainability and environment related topics. Sometimes environment related courses have very similar titles and students cannot see the difference at a glance."

"A lack of training."

"A lack of available pedagogical resources."

"A lack of allocated time in schools for Education for Environmental Citizenship (EEC)."

"It is a minor subject."

"Students think they know about it, but they do not."

"Between the age of 13 and 16 students are interested in sex and not in Education for Environmental Citizenship."

"While environmental legislation and connected requirement of sustainability is a good basis, the interest in sustainability is often overruled by the short-term economic interest of some sectorial groups."

10.6 Conclusions

In our report we have presented the status of Education for Environmental Citizenship in Hungary. As the closest subjects of EE and citizenship studies are not among the most important subjects in the Hungarian primary and secondary education, teachers can hardly position it; they usually keep EE, ESD, and Education for Environmental Citizenship as synonyms. SE is well-known but is far from everyday practice, while CE is another far-from-reality subject.

In our report we present the main strengths, weaknesses, opportunities and threats of Education for Environmental Citizenship, analysing the relevant policy documents and structured interviews conducted among experts, decision-makers, scientists and practitioners.

Education for Environmental Citizenship could build on strong SE by using the basics and by showing how the knowledge learned during SE classes could be turned into real experiences. Despite this unique opportunity, as EE and Education

for Environmental Citizenship are almost invisible and SE teachers are often not the same as EE (and Education for Environmental Citizenship) teachers, the link between the subjects remains invisible to the students. The situation is especially problematic in formal secondary education, as students have to prepare themselves for the university entrance exams which are based on traditional disciplines. The reorganisation of the Hungarian education system could change the roles of EE and ESD, while the future of Education for Environmental Citizenship depends very much on the changes of environmental policy in the longer term.

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The European Network for Environmental Citizenship (ENEC) – funded as a COST Action (CA16229-Horizon 2020) – brings together more than 120 experts from 37 countries with the objective to improve the understanding, the practice and the assessment of Environmental Citizenship in Europe and the participating countries.
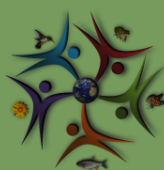
Environmental Citizenship has been an influential concept in many different arenas such as economy, policy, philosophy, organizational and corporation management and marketing and could be better exploited and established furthermore in the field of education as well.

This report examines the Strengths, Weaknesses, Opportunities and Threats of Education for Environmental Citizenship in Europe. In the first part of the report, the need for Education for Environmental Citizenship, is examined along with the methodology and results of an extensive research from more than 157 experts in 28 European countries and Israel. In the second part of the report, the country chapters for the 23 European countries and Israel emphasise the similarities, differences and special features of these case studies.