European SWOT Analysis on Education for Environmental Citizenship

Edited by
Andreas Ch. Hadjichambis, Pedro Reis & Demetra Paraskeva-Hadjichambi

cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY
Funded by the Horizon 2020 Framework Programme of the European Union

U LISBOA UNIVERSIDADE DE LISBOA
ie Instituto de Educação

European Network for Environmental Citizenship
Cost Action CA16229

Cyprus Centre for Environmental Research and Education

ENEC Cost Action Report

European SWOT Analysis on Education for Environmental Citizenship

Edited by
Andreas Ch. Hadjichambis[1,2], Pedro Reis[3], Demetra Paraskeva-Hadjichambi[1,2]

1: Cyprus Centre for Environmental Research and Education, CYCERE, Agiou Andreou 306, P.O. Box 56091, 3304 - Cyprus University of Technology, Lemesos, Cyprus, e-mail: a.chadjihambi@cytanet.com.cy

2: Cyprus Ministry of Education and Culture, Kimonos & Thoukididou, 1434, Nicosia, Cyprus, e-mail: demhad@ucy.ac.cy

3: Instituto de Educação – Universidade de Lisboa, Alameda da Universidade, Lisboa, Portugal, e-mail: preis@ie.ulisboa.pt

ISBN: 978-9963-9275-6-2

Reference

This book is referenced as below:
Hadjichambis, A. Ch., Reis, P. & Paraskeva-Hadjichambi D. (Eds.). (2019). *European SWOT Analysis on Education for Environmental Citizenship*. Lisbon: Intitute of Education – University of Lisbon, Cyprus Centre for Environmental Research and Education & European Network for Environmental Citizenship – ENEC Cost Action.

Address

Cost Association Address: Avenue Louise 149, 1050 Brussels, Belgium
Postal Address: Cyprus Centre for Environmental Research and Education – CYCERE, Agiou Andreou 306, P.O. Box 56091, 3304, Lemesos, Cyprus.

Acknowledgements

This report is based on work from Cost Action ENEC – European Network for Environmental Citizenship (CA16229) supported by COST (European Cooperation in Science and Technology).

COST (European Cooperation in Science and Technology) is a pan-European Intergovernmental Framework. Its mission is to enable break-through scientific and technological developments leading to new concepts and products and thereby contribute to strengthening Europe's research and innovation capacities.

cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

Funded by the Horizon 2020 Framework Programme of the European Union

European Network for Environmental Citizenship
Cost Action CA16229

Grant Holder Institution:

Table of Contents

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

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.

Dr Andreas Ch. Hadjichambis
Prof Pedro Reis
Dr Demetra Paraskeva-Hadjichambi

European Network for
Environmental Citizenship
ENEC Cost Action CA16229

4. Education for Environmental Citizenship: An opportunity for Flanders (Belgium)? Results of the Flemish SWOT analysis for ENEC.

Jelle Boeve-de Pauw

University of Antwerp, Department of Training and Education Sciences, Research unit Edubron, Belgium, e-mail: jelle.boevedepauw@uantwerp.be

Abstract: This chapter reports on the results of a SWOT analysis concerning the concept of Education for Environmental Citizenship for Flanders (the Dutch speaking community of Belgium). The analysis is part of the work plan of the COST action 'European Network for Environmental Citizenship'. The methodology of the Flemish SWOT is in line with the overall ENEC methodology. Six participants answered the questionnaire: academics, teachers and professionals affiliated to governmental and non-governmental decision-making. In general, it can be stated that the Flemish participants' responses reflect a shared interpretation of the strengths, weaknesses, opportunities and threats for the concept of Education for Environmental Citizenship in Flanders. The main strengths that are identified are the holistic nature of Education for Environmental Citizenship, its clear focus on environmental issues, its explicit inclusion of the political, and its propagated co-creative and participatory approach. Weaknesses that are touched upon concern a general public and institutional unfamiliarity with the concept of Education for Environmental Citizenship and the risk of conceptual confusion. Also the unclear goals of Education for Environmental Citizenship are identified as a weakness, together with a potential deprioritisation of social and economic perspectives in sustainability issues. The respondents see potential opportunities in seeking inspiration for Education for Environmental Citizenship in non-formal educational contexts. Given the recent adoption of new curricular goals for Flemish formal education there is also an opportunity to connect or infuse the concept of Education for Environmental Citizenship at this level. The respondents furthermore identified a general societal sense of urgency regarding environmental and citizenship issues, as well as the concept's transferability to the employability debate as opportunities for Flanders. Threats are connected to the (yet) unclear goals of Education for Environmental Citizenship, a low perceived connection to the curriculum and the perception that Flemish education has been subjected to (too) many innovations. These strengths, weaknesses, opportunities and threats need to be capitulated on when designing an implementation strategy that aims to successfully infuse Education for Environmental Citizenship into education in Flanders.

Acknowledgements: This chapter is based on work from Cost Action ENEC – European Network for Environmental Citizenship (CA16229) supported by COST (European Cooperation in Science and Technology). I would like to express gratitude to the participants in this SWOT analysis for their time and efforts in answering the questionnaire.

4.1 What is Education for Environmental Citizenship and what are its strengths?

The participants report an agreement on the fact that Education for Environmental Citizenship focuses on education for competences that can help contribute to the development of citizenship in the context of environmental issues. They see Education for Environmental Citizenship as closely related to Education for Sustainable Development (ESD) in the sense that it puts forward a holistic approach to issues and a pluralistic approach to teaching (in line with Öhman, 2008), while at the same time aiming to facilitate action taken by young people. This reflects the political nature of the concept of Education for Environmental Citizenship. The respondents argue that while ESD brings together environmental, social and economic perspectives on sustainability issues, Education for Environmental Citizenship might have a greater focus on the environmental perspective. The concept of Education for Environmental Citizenship seems to deprioritise social and economic perspectives in favour of the environmental perspective. One respondent framed the Education for Environmental Citizenship as 'environmental education for sustainable development'. The concept of Education for Environmental Citizenship might be an instrument that can attribute increased importance to environmental considerations within formal and non-formal education. There is however, a lot of semantic and conceptual confusion present within the Flemish respondents, which is in line with the absence of the concept of Education for Environmental Citizenship in general and educational policy and practice in Flanders.

Respondents use the words such as 'integrated', 'multidisciplinary' and 'interdisciplinary' to identify the conceptual nature of Education for Environmental Citizenship. Consensus exists that while Education for Environmental Citizenship is interpreted as a holistic concept, it is skewed towards environmental perspectives on suitability issues. Education for Environmental Citizenship is therefore interpreted as distinctly different but also overlapping with other educations. Most overlap is perceived with ESD, least with science education. In between those are environmental education and citizenship education. Some of the participants in the SWOT analysis identify Education for Environmental Citizenship as a possible overarching concept that integrates other educations such as environmental education, ESD and citizenship education.

An essential trait of Education for Environmental Citizenship identified as a strength by the participants is that it seems to have a clear participatory nature and

puts forwards a co-creative approach to teaching and learning. The respondents also interpret the concept of Education for Environmental Citizenship as having a focus on competences such as critical thinking and action taking, rather than just knowledge. Knowledge in the context of Education for Environmental Citizenship should understood as a practical/functional knowledge on top of the factual knowledge of environmental issue as well as decision-making processes, which seems to be in line with the distinction between types of knowledge within the 'competence model for environmental education' (Roczen et al., 2014). The Flemish respondents also highlight that Education for Environmental Citizenship can have a focus not just on practical but also political solutions to environmental issues. Connected to this argument is the active role that learners have in both the practical and political solution.

To summarise, strengths of Education for Environmental Citizenship are interpreted as the holistic nature of the concept, its focus on environmental issues, its connection to the political, and its co-creative and participatory approach.

4.2 What are weaknesses of Education for Environmental Citizenship and how might they be tackled?

Flemish respondents report that the concept is entirely new and unfamiliar in Flemish education. This is unanimously identified as its greatest weakness. There seems to be a lot of conceptual confusion already present, especially for teachers that have limited understanding of even the other educations. Little familiarity is reported to be present with the learning goals and teaching approaches of the diverse educations, as well as the competences required by teachers to achieve those goals or apply these approaches. Given these restrictions, the necessary foundation to build Education for Environmental Citizenship into the Flemish context seems to be absent. Some respondents also interpret Education for Environmental Citizenship as a weak concept since it seems to neglect or underemphasise the social and economic dimensions of sustainability issues. This conceptual confusion also enhances the difficulty of implementing the concept.

The respondents outlined possible strategies to tackle these weaknesses. A clear role is seen for teacher training, including Education for Environmental Citizenship as a subject into the curricula in higher education, as well as putting it into practice within the teaching. The adoption into educational policy will be needed if the concept is to have any chance of getting known and accepted into formal as well as non-formal education. Conceptual clarification could be provided through a framework that is close to practice and can facilitate the sharing of inspirational practices. Those practices in particular that highlight the differences between the different educations are mentioned as having been instrumental in achieving this goal. Such practices could be shared online (short videos/training modules) and through local entities that specialise in in- and pre-service teacher training. If this route is taken

by the ENEC COST action, then non-normativity is essential. Good or best practices should be avoided, while inspiring practices with rich descriptions of context and processes leading to the practices are identified as central.

To summarise, the weaknesses of Education for Environmental Citizenship are interpreted by the Flemish respondents as the general unfamiliarity of possible conceptual confusion, the uncertainty of the leaning goals of Education for Environmental Citizenship, and the fact that Education for Environmental Citizenship seems to underappreciate social and economic perspectives of sustainability issues.

4.3 Which opportunities can be identified for Education for Environmental Citizenship?

Despite having identified important weaknesses and threats for Education for Environmental Citizenship (see 4.), the Flemish respondents also highlighted potential opportunities. A first set is connected to current societal trends. Respondents mentioned the growing trend within youth culture to adhere to ecological thoughts and principles. In Flanders this can be seen amongst others in the increase of support for green parties among young adults. Respondents also highlighted the growing sense of urgency for ecological and citizenship issues in society as well as in schools. At a higher level the sustainable development goals (SDGs) are mentioned (UN, 2012), which have gained recognition and endorsement across societal actors in Flanders. Connecting the introduction of Education for Environmental Citizenship into Flemish education to the implementation of the SDGs can be a way to increase effectiveness.

Other potential trends in Flemish society that might offer opportunities to promote Education for Environmental Citizenship are those of (a) co-creation as a driving principle of collaborations, and (b) circular economy (IDEA, 2106). New technologies (e.g. social media) are also mentioned by all respondents as being opportunities.

The flexibility of non-formal education is mentioned by some respondents as a strength that can foster the adoption of Education for Environmental Citizenship. It is also seen as inspirational for the implementation of Education for Environmental Citizenship into formal education. Within formal education, the tradition of integrated approaches to teaching subjects that is present in Flemish primary education is an opportunity to adopt the holistic concept of Education for Environmental Citizenship. A major opportunity, and also a strategy to overcome several of the threats mentioned elsewhere, is to clearly show to teachers or school teams how Education for Environmental Citizenship is connected to the curriculum. In relation to this, respondents argue that there might be the tendency for Flemish schools to gain more freedom in creating their own curriculum, or translate the government-determined end goals into their own educational practices. Lastly, several respondents identified that within the neoliberal societal trends, connection Education for Environmental

Citizenship to competencies for employability and the labour market or highlighting the transferability of competences that are outcomes of Education for Environmental Citizenship to said context, are potentially strong opportunities.

To summarise, opportunities for Education for Environmental Citizenship are interpreted as finding inspiration in non-formal education for formal education, identifying and presenting connections to the curriculum, connecting the adoption of Education for Environmental Citizenship to senses of urgency in society/schools, gaining more freedom in schools, and the possible transfer to employability and the labour market.

4.4 What are threats for Education for Environmental Citizenship and how might they become opportunities?

Some of the respondents argued that Flemish teachers often hold narrow task perceptions (e.g. Evers et al., 2011), in which what is perceived as what is their job is highly influenced by the curriculum. In secondary education (grades 7 to 12) there is the tradition of compartmentalisation of school subjects. This is a clear threat for such a holistic concept as Education for Environmental Citizenship. In primary education (grades K to 6) this is less present. Another threat that is identified is the lack of teaching and learning materials that have been developed specifically for Education for Environmental Citizenship. Also, Education for Environmental Citizenship is not clearly present as a topic that is used by the inspectorate to evaluate the quality of schools, which adds to its low perceived priority (see e.g. Penninckx et al., 2016). Furthermore, the unclear connection to the curriculum is highlighted by the respondents, adding to the perception that Education for Environmental Citizenship is not a part of the formal expectations of schools.

Several participants in the SWOT analysis mentioned that an effective strategy relating to the curriculum is two-fold: (1) highlighting the connection between Education for Environmental Citizenship and the current curriculum, and (2) infusing Education for Environmental Citizenship into new curricula. Respondents however highlighted the hard competition in the curriculum: many goals need to be achieved and a many new input competes for a place in the curriculum. Over the last decades there have been intensive educational innovations with several upcoming large scale changes to the organisation of daily school life for teachers (see e.g. Nicaise et al., 2014). In Flanders, implementing Education for Environmental Citizenship is likely to be experienced as ‘yet another innovation’ and to meet resistance from innovation-tired teachers and school teams.

The goals of Education for Environmental Citizenship should be clear and well understood by educational professionals. Several respondents also highlighted the clear need to be provided with an assessment framework and instrument(s) to evaluate whether implementation could be successful. Without such insights Education for Environmental Citizenship is considered to have little chance of being adopted

into education in Flanders. A strategy identified by the Flemish respondents would be to focus on education goals during pre- and in-service teacher training, and develop practical tools and methodologies.

To summarise, the main threats that the respondents identify all relate to the fact that Education for Environmental Citizenship might not be identified as a priority. These are low task perceptions by teachers, unclear goals, the reigning perception of 'too many' educational innovations in Flanders, and low perceived connection the curriculum.

Strengths	**Weaknesses**
Holistic concept	Unfamiliar concept
Cocreative and participatory approach	Great conceptual confusion
Focus on environmental perspective	Unclear wat the goal of EEC is
Political character	Ignores social and economic perspectives
Opportunities	**Threats**
Non-formal education as inspiration for formal education	Unclear goals
Connect to curriculum	Too many innovations in Flanders
Connections to sense of urgency	Low (perceived) connection to curriculum
Transferability to employability	Not identified as priority

Fig. 4.1. Visual summary of the results of the SWOT analysis in Flanders (Belgium)

4.5 References

Evers, A. T., Kreijns, K., Van der Heijden, B. I. J. M., & Gerrichhauzen, J. T. G. (2011). An Organizational and Task Perspective Model Aimed at Enhancing Teachers' Professional Development and Occupational Expertise. *Human Resource Development Review, 10*(2), 151-179.

IDEA (2016). De Vlaamse deeleconomie onderzocht. [Sharing economy in Flanders]. IDEA, Brussel.

Nicaise, I., Spruyt, B., Van Houtte, M. & Kavadias, D. (Eds.). Het onderwijsdebat: waarom de hervorming van het secundair broodnodig is [The education debate: Why reform is incremental in secondary education]. 2014, EPO: Berchem, Belgium.

Öhman, J. (2008). *Values and Democracy in Education for Sustainable Development*; Liber: Malmö, Sweden, 2008.

Pennickx, M., Vanhoof, J., De Maeyer, S., & Van Petegem, P. (2016). Effect and side effects of Flemish school inspection. *Educational Management, Administration and Leadership, 44*(11), 728-744.

Roczen, N., Kaiser, F., Bogner, F., & Wilson, M. (2014). A competence model for environmental education. *Environment & Behavior, 46*(8), 972-992.

UN (2012). *Realizing The Future We Want for All. Report to the Secretary-General*. UN System Task Team on the Post-2015 UN Development Agenda, New York.

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.

ISBN: 978-9963-9275-6-2

cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY
Funded by the Horizon 2020 Framework Programme of the European Union

U LISBOA UNIVERSIDADE DE LISBOA
ie Instituto de Educação

European Network for Environmental Citizenship
Cost Action CA16229

Cyprus Centre for Environmental Research and Education