European SWOT Analysis on Education for Environmental Citizenship

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

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ENEC Cost Action Report

European SWOT Analysis on Education for Environmental Citizenship

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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

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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21. Spanish SWOT Analysis of Education for Environmental Citizenship

Strengths, weaknesses, opportunities and threats for Environmental Citizenship in Spain

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Abstract: The content analysis of experts' responses consider Education for Environmental Citizenship necessary to tackle current societal challenges and reveal a complex conceptualisation of the construct integrating features from other related approaches to enact a new model of citizenship. However, they consider it to be a complex and highly demanding educational approach that goes beyond the usual boundaries of teaching and learning. Its intention is to shape people's beliefs and habits, to deeply affect personal and social values and behaviours in order to promote highly committed citizens who are actively engaged in the mitigation of environmental problems. Additionally, they believe that Education for Environmental Citizenship is not a well-known concept at a national level and can be confused with other approaches such as Citizenship Education (CE), Environmental Education (EE) and Education for Sustainable Development (ESD). They mention the difficulties of integrating Education for Environmental Citizenship into the Spanish educational system, due to the current school structure and curriculum and the lack of concern, recognition and preparation from teachers. The other main threat mentioned by experts relates to the predominant economical model and consumerist values that go against Education for Environmental Citizenship goals and suggest reinforcing social networks of people sharing Education for Environmental Citizenship concerns. As opportunities, they mentioned an increasing preoccupation for environmental issues, particular trends in teacher education, the possibilities offered by current technologies, and specific programmes and funding in this line.

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21.1 Introduction

A group of experts in Science Education (SE), Citizenship Education (CE), Environmental Education (EE) and Education for Sustainable Development (ESD) from different fields took part in a national analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) for Education for Environmental Citizenship in Spain. They were selected to represent expertise as researchers (one participant), educators (two participants) and decision-makers in educational policy (one participant), professional associations (one participant) and a national NGO (one participant). Additionally, we received feedback from two additional decision-makers at professional associations and four researchers in the previously mentioned areas. A table outlining the experts and their fields is below.

Table 21.1 Background information of Spanish participants

Participant	Expertise	Field
JL	Decision-maker	Educational Professional Society
GS	Decision-maker	Educational Professional Society
FVC	Decision-maker	Educational Professional Society
SGS	Decision-maker	National NGO
EG	Policy-maker	Policy Maker in the Ministry of Education.
FG	Researcher	Researcher –Citizenship Education
MLL	Researcher	Researcher –Education for Sustainable Development.
IB	Teacher	Educator – Teacher in Secondary Education.
JP	Researcher	Researcher –Environmental Education and Science Education.
LM	Teacher	Educator – Teacher in Secondary Education.
RDM	Researcher	Researcher –Education for Sustainable Development.
SG	Researcher	Researcher –Citizenship Education.

21.2 Strengths of Education for Environmental Citizenship in Spain

When asked about advantages of Education for Environmental Citizenship, experts referred to it as the best alternative available to face current problems and key societal challenges relating to the future of our planet. Some of the benefits mentioned

include: the awareness of the impact of humans' actions, the concern about future generations, promoting sustainable behaviours, and fostering consistent policies that support mitigation of environmental issues. We present below some of the quotations that illustrate how experts express these ideas:

"Education for Environmental Citizenship is the best alternative that we, as individuals and educators, can offer society to try to counteract the self-destructive process in which humanity finds itself. Only new generations can reverse the planetary emergency situation that we live in" (JP, researcher).

"It prepares young citizens to face the serious environmental and social problems of our world" (FG, researcher).

"It connects environmental problems to daily life and individual and community problems, and generates an awareness of the environmental implications of our lifestyle" (JL, decision-maker at an educational professional society).

"It raises awareness of environmental issues, and the need to respect and conserve the world we live in" (IB, teacher).

"It has the potential to educate young citizens in collective responsibility with respect to the planet" (FG, researcher).

"It fosters solidarity through thinking of future generations, with a strong component on social justice" (MLL, researcher).

"It causes the demand of pro-environmental policies" (JL, decision maker).

"In my opinion, Education for Environmental Citizenship could help citizens become aware of the consequence of their daily actions, help them change their habits and organise themselves within networks that try to influence the political and economic powers, so that the pro-environmental values form part of the priorities agenda" (JP, researcher).

When reflecting on the implications of Education for Environmental Citizenship at the school level, experts talk about benefits relating to the promotion of environmental minds and habits in students and the opportunity of implementing a more active interdisciplinary education to better connect with students' lives. Below are quotations expressing these ideas:

"It promotes environmental minds in our students" (LM, teacher).

"Introduces concepts and habits of sustainability in schools" (GS, decision-maker at an educational professional association).

"It integrates content from various school subjects to achieve better educational objectives, connects the school context with the social contexts, develops responsibility and civic commitment of the students and offers the possibility to make school education more active" (FG, researcher).

Trying to categorise experts' responses according to prominent themes, we can see that some participants emphasise the behavioural component of Education for Environmental Citizenship:

"Environmental health depends on citizen/consumer behaviour" (GS, decision-maker at an educational professional association).

Environmental Citizenship has to do with "knowing how to behave as responsible citizens in the environment" (IB, teacher).

"It allows modulating consumption habits in terms of environmental impact" (JL, decision-maker at an educational professional society).

"It is a way of changing personal habits and it helps to strengthen civil society because people are invited to participate in social organisations" (FVC, decision-maker at an educational professional society).

We also find other responses that emphasise the citizenship dimension and consider Education for Environmental Citizenship as a necessary component of CE:

"Education for Environmental Citizenship is devoted to citizenship, which supposes social, political and economic considerations" (FVC, decision-maker at an educational professional society).

"Starting from the idea that the exercise of citizenship should permeate the different spaces of public and private life, Education for Environmental Citizenship implies a social pedagogy, which develops competences to live in a way that implies in the subjects the deliberate capacity to know how to choose between several options, based on ethical considerations and community interests" (EG, policy-maker).

"It will focus on citizen responsibility on environmental aspects. The citizen must be responsible in many other social areas, but especially in the environmental contents" (IB, teacher).

"According to Dobson, CE is the most appropriate option. The starting point must be SE and the educational curricula must contain ESD and EE in a transversal way. But the ultimate goal is to train future generations in a broader and deeper notion of citizenship, which assumes ecology as a necessary ontological condition" (SGS, decision-maker at a national NGO).

When comparing Education for Environmental Citizenship with CE, EE or ESD, several experts highlight similarities or consider that there are slight differences just concerning terminology or where the emphasis is placed:

"I think they are more rhetorical than substantive differences, except in the case of science education" (JP, researcher).

"I cannot see big differences with ESD, I see it as very complete. Perhaps I need to study it better" (MLL, researcher).

"Basically, only the emphasis on certain specific themes of education for EC differs from the other fields" (EG, policy maker, Ministry of Education).

"I think that from all the options you can work on issues of environmental responsibility" (IB, teacher).

However, other participants focus their responses on identifying differential features of Education for Environmental Citizenship. In the following we present some quotations pointing out differences between Education for Environmental Citizenship and other forms of education. Most of them refer to a stronger emphasis on behaviours with prevalence of the social dimension, highlighting concepts such as community, responsibility and citizenship when dealing with environmental issues:

"I think it is complementary to other types of non-formal education such as EE, and this will help us to establish and maintain sustainable behavioural habits from childhood" (GS, decision-maker, Educational Professional Society).

What is different is "adding to the environmental education the citizenship subjects, as the main factor for the success of environmental regulation and health" (FG, researcher).

"The transversality of pro-environmental behaviour is clearer than from classical environmental education; a naturalistic approach" (JL, decision-maker, Educational Professional Society).

"Environmental education could be very personal. Instead, Education for Environmental Citizenship includes a social point of view" (FVC, decision-maker, Educational Professional Society).

The main difference from the other options is "the social dimension of the action" (JP, researcher).

"The environmental responsibility of everyday acts at the community level is assumed in a more evident way" (JL, decision-maker, Educational Professional Society).

"The slight difference would be the social point of view, but ESD has it (the social point of view) very strongly" (MLL, researcher).

Additionally, some of the participants' responses to the question about the benefits of Education for Environmental Citizenship express a complex vision that goes beyond other approaches and combines key features of CE, EE or ESD. We present some quotations showing experts' responses in this line:

"It encourages citizens' participation in other areas beyond the environment; citizen participation in general and in local management of environmental problems in particular" (JL decision-maker, Educational Professional Society).

"Education for Environmental Citizenship provides more value towards sustainability such as the powerful knowledge of citizenship" (RDM, researcher).

"Citizenship awareness is capital for the right implementation of environmental policies…to ask for the right implementation of environmental policies and environmental laws" (FG, researcher).

Education for Environmental Citizenship "incorporates ecology as an intrinsic element of citizenship, overcomes the territorial limitations of Nation States, updates traditional concepts of citizenship (liberal, republican and communitarian approaches) and incorporates a moral and historical dimension to the political and economic conception of citizenship" (SGS, decision-maker, National NGO).

When asked about what is unique about Education for Environmental Citizenship or what could be done in a better way through this approach, we find complex responses referring to education in/on/for the environment, a better capacity of integration of key goals from different approaches or a new model of citizenship challenging predominant values and behaviours:

Unique to Education for Environmental Citizenship are "specifically the themes that drive and lead to educate in the environment, on the environment and for the environment; those themes that contribute towards building a citizenship that is

knowledgeable about the biophysical environment and its associated problems, with an awareness of how to help solve those problems and a motivation to work towards their solution" (EG, Policy Maker in the Ministry of Education).

"An educational orientation with a greater integration capacity than EE or EC, separately considered" (FG, researcher).

"EC should be the basis for creating a new model of citizenship. The other types of education help to sensitize, raise awareness or promote a more ecological way of life" (SGS, decision-maker, National NGO).

"EC cultivates a new model of citizenship. Therefore, people will be more motivated to plant this new model that new generations will pick up. EC can be much more inspiring and motivating than the other types of education" (SGS, decision-maker, National NGO).

"You will see that educating for Environmental Citizenship involves fighting against a series of contradictory elements that exist in everyday life in which we perform as social subjects, and that brings us changes in the relationship with the environment" (EG, policy maker in the Ministry of Education).

Education for Environmental Citizenship "improves self-esteem and community resilience. Many people and communities can recover a meaningful existence. The exercise of environmental virtue can be the seed for a new society" (SGS, decision-maker, National NGO).

"Education for Environmental Citizenship could contribute towards improving new forms of environmental and cultural policy; understanding it as a process where the formation of citizens allows for the gestation of appropriate relationships between us and the environment" (EG, policy maker in the Ministry of Education).

21.3 Weaknesses of Education for Environmental Citizenship in Spain

According to the Spanish experts, one of the main weaknesses of Education for Environmental Citizenship is that it is a term not very well known or widely spread in Spain and it can be easily confused with other similar approaches, such as EE, CE or ESD, which are better known and are already integrated into the educational system:

"I don't think that EC education is widespread enough in order to compete with EE and it is not well perceived or known by people in general" (GS, decision-maker, Educational Professional Society).

"Environmental Citizenship is easily confused with the other categories" (SGS, decision-maker, National NGO).

Additionally, Education for Environmental Citizenship is considered to be a topic that is difficult to integrate into Spanish schools:

"It has very different characteristics from the usual school subjects, therefore it is hard to include it into school education" (FG, researcher).

When asked about weaknesses of Education for Environmental Citizenship, several experts referred to the difficulties that are related to a complex, ambitious and highly demanding concept in term of engagement, commitment and a change of values and behaviours:

"EC is a theoretical construction that needs to be implemented correctly" and "it is a way of being, not a style of consumption or language. It can be hidden through pseudo-ecological or new age messages" (SGS, decision-maker, National NGO).

"A critical exercise in Education for Environmental Citizenship requires both the ability to learn to solve problems or to appropriately handle the terms of public debate, as well as the ability to learn to interpret and commit oneself to values that promote an emancipatory form of citizenship oriented towards new sensibilities and social relationships" (EG, policy-maker, Ministry of Education).

"EC requires a committed educational community. It is not an academic subject, but a way of life harmonious with the environment and society" (SGS, decision-maker, National NGO).

"It is a personal effort to follow good practices on environmental issues" (MLL, researcher).

"It is a very long process that requires family participation, assistance from the teaching staff, the students, the Administration and the rest of society" and "EC requires an internal transition that forces a change in values, beliefs, attitudes and individual and collective behaviours" (SGS, decision-maker, National NGO).

"Too ambitious for a carefree or uninformed citizen" and "too complex for a very busy citizen" (JL, decision-maker, Educational Professional Society).

These intrinsic characteristics of Education for Environmental Citizenship pose some challenges:

"Difficulty in imitating models of social behaviour of other countries that are much more committed to the environment" and "difficulty in shaping mentalities and habits that have been consolidated since childhood" (JL, decision-maker, Educational Professional Society).

"People are very lazy in working on environmental issues" (MLL, researcher).

"It requires a lot of intrinsic motivation to overcome the inertia of a selfish and anthropocentric consumer society" (SGS, decision-maker, National NGO).

When asked about what should be avoided to implement Education for Environmental Education, participants mentioned provoking despair or hopeless, asking for unattainable commitments and promoting a political utopia, environmentalism or activism without enough reflection. Conversely, we should enhance an individual's capacity to argue about big conflicts and to uptake consequent actions. The following quotations illustrate how these ideas are expressed:

"The demand for unattainable commitments" (JL, decision-maker, Educational Professional Society).

"I believe that it (Education for Environmental Citizenship) should avoid environmental activism without reflecting on the current model of life and alternatives for the future" (JP, researcher).

We should avoid "Environmentalism" and "the political utopia" (JL, decision-maker, Educational Professional Society).

"We should not avoid 'big conflicts, clashes', these should help on argumentation" (MLL, researcher).

One expert claims that we should avoid Education for Environmental Citizenship becoming "a school subject similar to existing school subjects; it must have different characteristics" (FG, researcher).

In the line of recognising Education for Environmental Citizenship as a complex subject, experts point out at the importance of getting a good integration of key components and a proper balance of complementary elements: knowledge/action, theory/practice, personal/social, local/global, individual/collective:

"We should avoid focusing on the individual effort above the collective" (JL, decision-maker, Educational Professional Society).

"If only focusses on social aspects and forgets personal habits" (FVC, decision-maker, Educational Professional Society).

"Focus on the contribution of knowledge, forgetting the basic objective of developing civic engagement and civic action" (FG, researcher).

"Working on problems not linked to the students' environment" should be avoided (FG, researcher).

"The realisation of educational activities directed to a citizenship that is oriented to face the current socio-environmental problems is not a simple task. The local-global interrelation, if it is not treated properly, can imply a reductionism that weakens the educational results being achieved in terms of Education for Environmental Citizenship" (EG, policy-maker, Ministry of Education).

"Providing information only on environmental problems should be avoided. We must go further. Understanding our responsibility as consumers and facing concrete actions for change" (GS, decision-maker, Educational Professional Society).

Experts also expressed the importance of developing Education for Environmental Citizenship based on current scientific knowledge, as well as on previous experiences in closely related fields:

"EC must be based on solid foundations from a moral and political philosophy, law, pedagogy, psychology, environmental study or sociology. The exercise of 'environmental virtue' must be practiced from the language and the action, not only remaining in the theoretical formulation of contents or in pilot programmes without a rigorous evaluation. Above all, it must avoid confusion with pseudo-scientific or pseudo-religious practices, but take advantage of all the theoretical-practical baggage of political ecology, green political theory, new economies…, transition towns, eco-villages, economy of the common good, blue economy) and new ethical approaches (post-cosmopolitanism)" (SGS, decision-maker, National NGO).

21.4 Opportunities of Education for Environmental Citizenship in Spain

The most mentioned aspects related to opportunities for EE are: higher levels of public information and concern, increasing political and educational interest in the topic, the existence of specific programmes and public funding in this line, and the opportunities offered by technology to enhance communication and facilitate the study and dissemination of environmental problems.

The negative effect of environmental issues are becoming more evident and this fact is mentioned as an opportunity for Education for Environmental Citizenship and the generation or specific networks and organisations to react against environmental problems:

"Migratory movements caused by climate change" and "the increase in environmental diseases" (JL, decision-maker, Educational Professional Society).

"They are connected with the implication of ecologist organisations" (FVC, decision-maker, Educational Professional Society).

"The expansion of social movements to achieve another world" (FG, researcher).

"Social networks and volunteering" (JP, researcher).

When asked about opportunities and trends that can support Education for Environmental Citizenship, responses were the following:

"Education for Environmental Citizenship is in demand around the world. It is a very current and necessary subject" (FVC, decision-maker, Educational Professional Society).

"There is an increasing concern and interest from different administrations", "what is reflected in existing environmental education programmes" and "changes in education policy syllabus at primary and secondary school level and in local policies" (GS, decision-maker, Educational Professional Society).

"Changes in Government Policy or European Policy related to the field" (IB, teacher).

"Public funds to organise different concrete actions" (GS, decision-maker, Educational Professional Society).

When identifying supportive trends, different educational programmes are mentioned as good opportunities for Education for Environmental Citizenship:

"The education on the 17 Sustainable Development Goals" (MLL, researcher).

"Participation in national and international academic together with these awards or programmes and promoting the mobility of students and teachers with institutional environmental programmes" (LM, teacher).

"Eco-orchards in educational centres and incorporating work in the orchards within the school curriculum" (GS, decision-maker, Educational Professional Society).

Pedagogical tools and trends are also mentioned by some experts as opportunities for Education for Environmental Citizenship:

"…interdisciplinary educational models… problem-based learning, project-based learning or cooperative learning. The model of teacher training based on teachers' *practical professional problems* (FG, researcher).

"Changes in the teaching methodology towards active methods" (IB, teacher).

"Movements of the new economies provide contrasting tools for the implementation of many aspects contained in Education for Environmental Citizenship (balance of the common good, index of happiness). There are also new social and pedagogical movements that develop key elements of EC (holocratical or sociocratical models) (SGS, decision-maker, National NGO).

Finally, the opportunities offered by technology were mentioned. In the following we present some quotations showing how these ideas are expressed:

"The serious environmental problems of our world are present in the media although no solutions are provided for them. We have a large amount of information from different sources to better study environmental problems. Students nowadays are in continuous contact with situations from different parts of the planet" (FG, researcher).

"To use the enormous power of dissemination and penetration of the media…reusing them from a critical perspective of social issues" (EG, policy-maker, Ministry of Education).

"The extension of the use of new technologies, which can facilitate work on environmental problems" (FG, researcher).

When explicitly asked if the changing technology is threatening Education for Environmental Citizenship, responses can be grouped in three categories: those who express uncertainty or consider it to be a threat (16%), those who consider it to be both a threat and an opportunity depending on how it is used (17%), and those who highlight the opportunities offered by technology for Education for Environmental Citizenship (67%). Below we present quotations to illustrate these categories:

"Yes, (it is threatening) but the human species must definitely accept that technology must be instrumental and an accessory within human relationships" (GS, decision-maker, Educational Professional Society).

"Technological changes can be a threat or an opportunity, depending on how they are used" (FG, researcher).

"No, it gives more opportunity for the knowledge, although it is not always followed by attitudes" (MLL, researcher).

"Not at all (a threat), I believe that it can contribute to the improvement of its development and implementation" (EG, policy-maker, Ministry of Education).

"No, to the contrary I think changing tech is able to be an instrument for awareness of EC" (SGS, decision-maker, National NGO).

21.5 Threats of Education for Environmental Citizenship in Spain

Some important threats identified by experts are related to the predominant economic model and consumerists and hedonist social values. Below we present some quotations illustrating these ideas:

"Economic interest is against environmental issues" (MLL, researcher).

"Apparently it goes against the progress of society" (JP, researcher).

"They can see that it goes against the trends of the society that idolises money and consumer goods" (JP, researcher).

Education for Environmental Citizenship has to fight against "a powerful set of political, economic and social interests that value consumption and economic growth above all, regardless of what is occurring and the unsustainable nature of that process" (JP, researcher).

"The media in general…highly biased and restricted…fully immersed in neoliberalism and oriented to consumption" (EG, policy-maker, Ministry of Education).

"The lack of promotion in the mass media" and "a discourse that poses attitudes and values that are not in line with those generally accepted by society and requires from them a critical review of their habitual ways of life" (JL, decision-maker, Educational Professional Society).

In relation to these trends against Education for Environmental Citizenship, it is claimed that one of the main challenges is "the social conditions for the change of values of citizens; it is therefore important that networks of people who share those values are created" (JP, researcher).

Another main threat repeatedly mentioned by participants is the lack of political and educational leadership.

"The lack of leadership of those who implement educational policies. Success is based on learning about *environmental virtue* as an honest and responsible attitude towards ecological challenges. For this, it is necessary for those who learn to observe the example of their teachers, mentors or managers" (SGS, decision-maker, National NGO).

"The political apathy in environmental matters" and "the lack of awareness among the political and educational leaders themselves" (JL, decision-maker, Educational Professional Society).

"Little credibility…the scarce environmental awareness of public administrations and large companies" (FVC, decision-makers, Educational Professional Society).

Nowadays, academic programmes and school systemic and organisational issues in Spain are mentioned as obstacles for the successful integration of Education for Environmental Citizenship, along with the lack of recognition, appropriate educational approaches and teacher training on this line:

"Current teaching staff at educational centres are not all trained to provide Education for Environmental Citizenship and also do not consider it to be important" (GS, decision-maker, Educational Professional Society).

"The main obstacles are the lack of a culture of environmental respect and the absence of hours of recognition for teachers who work" (LM, teacher).

"The lack of systemic support (social, political, economic and educational)…and public investment in education, and a shortage of economic incentives to existing programmes" (SGS, decision-maker, National NGO).

When asked about what could be improved in this respect, experts responded:

"The traditional organisation of the school curriculum; the traditional organisation of spaces and school times; teachers' resistance to assume this new education; and the lack of sensitivity of the educational authorities in relation to this education" (FG, researcher).

"Improve its importance in academic programmes" (LM, teacher).

"Its insertion into the school curriculum" (FG, researcher).

"The lack of transversal integration of the environment in educational programmes at all school levels" (JL, decision-maker, Educational Professional Society).

When asked whether there are Education for Environmental Citizenship learning materials, programmes or services available, experts considered that there are materials. These however are mostly related to other approaches such as SE, EE and CE, and in these cases where specific materials are available, they are not well-disseminated or integrated into coherent programmes. Here we offer illustrative quotations:

"There are currently many materials and resources for environmental education" (GS, decision-maker, Educational Professional Society).

"Yes, but from very different perspectives, corresponding to the subjects of the official curriculum" (IB, teacher).

"Materials, programmes and services are usually prepared for SE, EE and CE, but they could be reoriented towards Education for Environmental Citizenship" (FG, researcher).

When asked about the existence of specific teaching materials for EC they responded that there were some "but within very specialised sources, such as Ministry Webs, International Organizations web" (SGS, decision-maker, National NGO).

"In general, they are not very accessible. They are not disseminated correctly and this has a negative impact on their social and academic projection" (LM, teacher).

"Its construction and dissemination should be intensified between teachers and educational centres" (EG, policy-maker, Ministry of Education).

Other experts claim that the main problem is the lack of coordination or proper integration in coherent programs:

"There are many available materials and related pilot experiences, but they are not coordinated with each other. Generally, these initiatives distrust the political

action of the educational administration, which is very bureaucratic (it does not accept the educational heterodoxy)" (SG, decision-maker, Educational Professional Society).

"I think there are enough isolated resources but there is a lack of coherent and well evaluated programmes" (JP, researcher).

One of the experts is of the consideration that CE does not require teaching materials:

"It is not an exact science. Its main components are the reflection and awareness acquired through experience, and that is not learned in any book or teaching material" (JL, decision-maker, Educational Professional Society).

When explicitly asked whether any of the weaknesses seriously threaten Education for Environmental Citizenship, 58 percent of the participants referred to weaknesses or threats as important barriers for the successful achievement of CE goals. The following quotations illustrate the references to weaknesses:

"Too ambitious for a carefree or uninformed citizen" and "too complex for a very busy citizen" (JL, decision-maker, Educational Professional Society).

The predominant economic model, consumerist values, lack of leadership or appropriate teacher training are mentioned again as serious threats:

"The current socioeconomic model and the lack of time to respond quickly to the most urgent environmental challenges" (SG, researcher).

"That public figures, family and educators do not live and show alternative ways of thinking to the consumerist fever" (JP, researcher).

"The lack of environmental commitments of public authorities. Education for Environmental Citizenship is difficult to integrate into an official curriculum, it can only be done transversally" (IB, teacher).

"The main risk would lie in inadequate teacher training" (EG, policy-maker, Ministry of Education).

"The current educational system" (GS, decision-maker, Educational Professional Society).

On the other hand, 25 percent of participants consider that there is no serious threat to Education for Environmental Citizenship that cannot be overcome with the involvement of the main actors and with higher levels of commitment and investment.

"I think not; all the aforementioned threats can be overcome if there is a will on the part of the actors involved in Education for Environmental Citizenship" (FG, researcher).

"The key to combating weaknesses lies in the investment of more personnel and more money for technical means" (LM, teacher).

21.6 Comparing Education for Environmental Citizenship with Other Approaches in Spain

In this section we offer a view of experts' responses to questions intended to promote reflection on the differences between Education for Environmental Citizenship and other educational approaches education (e.g. EE, ESD, SE or CE).

When explicitly asked about what other types of education do better, 10 out of 12 experts either expressed uncertainty or pointed to EE, CE or ESD as being better established options at a national level.

"I'm not sure, but maybe EE" (JL, decision-maker, Educational Professional Society).

"EE and SE have a greater tradition with better established theoretical procedures and consensus" (JP, researcher).

"All public administrations participate and offer resources in the field of environmental education: City Councils, Provincial Councils and Administration" (GS, decision-maker, Educational Professional Society).

"Environmental education has a long trajectory with qualified professionals offering high quality and professional services" (GS, decision-maker, Educational Professional Society).

"ESD has more institutional support" (RDM, researcher).

"The other types of education allow an affordable learning about concepts relating to ecology. SE is supposed to be a great investment for the future economic development. CE has a greater tradition in many western educational systems." (SG, researcher).

"These contents can be treated transversally in all subjects, especially in Nature Sciences, Social Sciences, Ethics and Philosophy, etc." (IB, teacher).

Just one of the experts considered Education for Environmental Citizenship as the best option, and another claimed that any type of education can make valuable contributions as long as it is approached in an appropriate way:

"Education for Environmental Citizenship is the most appropriate approach; CE can also do well, if given an appropriate approach" (FG, researcher).

"We cannot establish a category of types of education. All of them can be beneficial and obtain results as long as the teaching staff is sufficiently documented and trained to implement them" (EG, policy-maker, Ministry of Education).

When asked whether are there any differences in the strengths, opportunities, weaknesses and threats for Education for Environmental Citizenship between formal and non-formal education, 25 percent of participants stated that SWOT for EC do not depend on the type of education and refer to actors or didactical interventions as key determinants:

"No, it depends on people as individuals, not on the type of education" (MLL, researcher).

"No, we said that Education for Environmental Citizenship has to be devoted to children and adults in every kind of programme and framework" (FVC, decision-maker, Educational Professional Society).

"Basically no, only that it will depend on the didactic treatment appropriate to the area of intervention" (EG, policy-maker, Ministry of Education).

Seventeen percent of experts identified differences between both types of education highlighting weaknesses of non-formal education:

"Non-formal education does not have quality filters, so it can be harmful for uninformed people" (JP, researcher).

"Of course, formal education can introduce speeches to students and teachers in a timely manner. Non-formal education is received and disseminated more sporadically" (LM, teacher).

However, 42 percent of participants mentioned positive aspects of non-formal education in comparison to formal education:

"Yes, I think non-formal education has more opportunities for Education for Environmental Citizenship" (RDM, researcher).

"Yes, in formal education it is stricter in terms of contents, times and forms. Non-formal education is more open to all of this" (IB, teacher).

"Of course, I think it can be addressed in a more comprehensive and effective way from non-formal education. Formal academic educators often lack the practical field experience that is essential" (JL, decision-maker, Educational Professional Society).

"Yes, I think Education for Environmental Citizenship is much more common and efficient on non-formal ways, such as adult education schools, NGOs activities, etc." (SG, researcher).

Finally, 17 percent of participants recognised both positive and negative aspects concerning the two types of education:

"Yes. Formal education is very conditioned to the educational curricula and to the achievement of certain results. However, Gunter Pauli admits that schools are the best place to develop a new socioeconomic model. On the other hand, non-formal education is developed in a context more open to learning by experience and the use of nature as a field of study and experimentation" (SG, researcher).

"Formal education requires that Education for Environmental Citizenship be adapted to the school framework and in particular to the existing curricular framework. Non-formal education also allows for the development of Education for Environmental Citizenship with more possibilities and resources, although it has the disadvantage of affecting a smaller number of students than school education" (FG, researcher).

When asked about the differences in strengths, opportunities, weaknesses and threats for Environmental Citizenship between primary and secondary education, 25 percent of participants considered that they did not depend on the educational stage, while 75 percent referred to the differences between primary and secondary school. Two experts focused their responses on secondary education considering it

to be more appropriate for EC or referring to the fact that secondary teachers are better prepared for teaching on this topic in spite of a higher curricular load. Conversely, other two experts considered primary education as a more appropriate context or highlight the importance of working on EC from the early years:

"Yes, teachers are more motivated (and dispose of more freedom) in primary school" (FVC, decision-maker, Educational Professional Society).

"Yes. In elementary school, there is a greater opportunity for new generations to incorporate the values and habits linked to EE. In high school, the lack of references and teacher commitment can make the learning more difficult" (SG, researcher).

The rest of responses pointed out the differences relating to students' age or motivations, the depth of contents or the kind of activities to carry out at any educational stage:

"Primary education should serve to generate emotionally positive experiences and secondary education should serve to work for environmentally positive projects" (JP, researcher).

"Yes. In primary school children have solidarity, they like to help others. In secondary school the students are more egoistic. Differences are on the growing process or the person, and therefore teachers cannot do that much. The syllabus is very strong on secondary education and the knowledge is wider and deeper" (MLL, researcher).

"Basically, Education for Environmental Citizenship can be very similar in both educational stages, but in secondary environmental problems can be worked on a broader scale and with greater support in scientific knowledge" (FG, researcher).

"The difference between both educational levels probably rests in the different presentation of the contents. They are not treated at the same level" (LM, teacher).

Differences are related to "the selection of topics, the depth and level of treatment in the classrooms and the resources used by the faculty in their implementation" (EG, policy-maker, Ministry of Education).

As a summary of this section, we can conclude that most of the experts' responses highlight differences concerning Education for Environmental Citizenship depending on the educational level (primary/secondary) and the type of education (formal/non-formal). They mention more opportunities and flexibility for non-formal education but consider it to be *sporadic* and often with less quality control and emphasise the need to address Education for Environmental Citizenship from formal education. In relation to the different educational levels, some responses mention that Education for Environmental Citizenship is essential at primary school to promote fundamental values and that should be worked in an experiential and emotional way; they also consider that at primary school teachers have more freedom and flexibility. However, some responses claim that teachers are better prepared at secondary school and Education for Environmental Citizenship can be worked with more in-depth knowledge. Teachers have to deal with content-driven overloaded curricula and not much freedom.

Finally, when trying to quantify the differences between Education for Environmental Citizenship and other types of education on a 5-point scale (1 = not similar;

5 = very similar), the most frequent value (mode) selected by experts in any case is 3 for EE; 4 for ESD; 4 for CE, and 2 for SE.

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.

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