

Overview of Education for Sustainable Development Implementation in France

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Abstract: In response to the environmental problematic, the education for sustainable development (ESD) keeps raising in the world. As other countries France faces challenges concerning ESD implementation. This paper gives an overview of French adaptation of its national education system and the challenges schools and teachers face to integrate ESD concretely in their syllabus. Moreover, the education to environmental issues needs to be extended to everyone - the general public, the companies and industries - in order to raise collective consciousness and give a better understanding of sustainable development and its stakes for the needs of all.

Keywords: ADEME, Education for Sustainable Development, France, school teachers

1. Introduction

If the politics of the Education to the Environment (EE) go back to 1970s, it is at the beginning of 2000s that European education systems integrated the concept of sustainable development. This concept, promoted by the World Commission on Environment and Development (WCED, 1987) and popularized by the Rio Conference (UNCED, 1992), has been successful in starting a dialogue between economic and environmental worlds. According to the definition of Brundtland (WCED, 1987) the sustainable development is considered as "a development which meets the needs of generations of the present without compromising the capacity of the future generations to be answered in theirs".

Education for Sustainable Development (ESD) promotes sustainable thinking and acting. It enables children and adults to make decisions and at the same time understand how those decisions affect future generations and the life of others. While human activities pressure on the environment, the need for sustainable development is clear. Since 1972 (UN Conference on the Human Environment in Stockholm and Recommendation 96), EE

is called upon as a means to address the environmental issues worldwide. In 1975, participants at the United Nations Educational, Scientific, and Cultural Organization (UNESCO) workshop, proposed a global framework for environmental education, referred to as the Belgrade Charter. Since then, UNESCO pushed countries to the institutionalization of the education relative to environment. Then International and European institutions put into place regulatory frameworks to encourage governments to develop educational policy responses. The basis of the international frame of the ESD are represented in particular by the Agenda 21 (Chapter 36, UNCED, 1992) from the Earth Summit in Rio de Janeiro (1992) and more recently the United Nations Decade of Education for Sustainable Development (2005-2014) from the World Summit on Sustainable Development (2002, Johannesburg).

«The French Committee on the United Nations' Decade» set up on October 2005, 11th defined four main thrusts in methodology: 1) modification of school curricula to introduce sustainable development; 2) teacher training and the development of suitable educational tools

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and approaches; 3) setting up of committees in each educational region to monitor the introduction of the system; 4) and creation of regional partnerships (UNECE & UNESCO, 2007). Later, in 2007, France initiated a multiparty debate on environment called “Grenelle Environnement” (www.legrenelle-environnement.fr; Delemasure, 2009), which for the first time brought together the state and representatives of civil society (non-governmental organizations, trade unions, corporations, etc.) to define a route map towards ecology and sustainable development and planning (Rio+20 Committee, 2011).

However the ways to approach ESD differ and evolve according to the country and its education system. Inevitably transverse, the educational initiative in ESD at school implies the contribution of the various disciplines, and the acquisition of a common culture leaning on known and scientific knowledge. It is thus a question of taking up a scientific and educational challenge (SNES, 2008).

This article provides an overview of main implementations in French educational policy to fulfill the goals described in the UN Decade of Education for Sustainable Development (2005-2014) and the challenges for establishments and teachers to enforce this policy.

2. The place of ESD in French Schools

Education often contributes to unsustainable living. This can happen through a lack of opportunity for learners to question their own lifestyles and the systems and structures that promote those lifestyles. It also happens through reproducing unsustainable models and practices. In France, after the awareness of the necessity to educate society to sustainable behaviors, ESD was gradually integrated into the school learnings and establishment lifestyle.

- From nursery school to secondary school

The French Ministry of National Education published reference texts at the Official Bulletin of National Education as circulars giving directives to teachers in

terms of education for compulsory school (from primary and secondary schools). In 1977, circular No 77-300 already integrated education relative to environment in teaching the pupils how to observe, understand and act responsible regarding the environment (Ministère de l’Education Nationale, 1977). The concept of sustainable development was integrated to the curriculum after 1987 (Brundtland Report, WCED, 1987). Protocol between the Ministry of National Education and the Ministry of Environment (January 1993, 14th) « allows to each pupil to gain a basic culture on problems related to the environment when they leave compulsory school ». Then, according to the UN Decade, a policy of generalization of the Education to the Environment for a Sustainable Development (EESD), called after ESD, was defined in 3 phases: circulars of 2004, 2007 and 2011 (Ministère de l’Education Nationale, 2004, 2007, 2011).

Thus, since 2004, the EESD is an integral part of the children’s initial training from the nursery school to high school including specialized schools (professional high schools, agricultural high schools, etc.) (EDUSCOL, 2013). From that time, the ESD is seen as “an important component of the initial training of the pupils, from their youngest age and during their schooling, to allow them to acquire knowledge and necessary methods to be situated in their environment and act there in a responsible way” (Ministère de l’Education Nationale, 2004). To entrust ESD in the educational public service constitutes to a democratization of the information, not only accessible by associations networks or Medias, and gives pupils the opportunity to be trained to critical mind.

- Éco-École and E3D labels

In 1992, after its return from the Rio Summit, the Foundation for Environmental Education (FEE) adapted the concept of Agenda 21 to school establishment. “Éco-École” is an international program of EESD, and a label that is recognized in elementary schools, junior and high schools that commit themselves toward operation that is ecologically responsible, and which incorporate the EESD into their teaching syllabi. Its pedagogical effect therefore

contributes to the generalization policy of EESD. This project also permit schools, teachers and their pupils to interact with other actors like local authorities, parents, associations and others (FEEE France, 2012).

Born in Rio, and launched in 1994, this plan is currently running in 50 countries. 41,000 school establishments at world level are engaged in this process, of which 1500 are in France. Once they have a label, the participants can make international cooperation by taking contact with the *Éco-Écoles* of other countries in order to exchange their experiences, organize linguistic exchanges, take action in favor of development and solidarity, at the local level or abroad (FEEE France, 2012). Results of experiments carried out in 84 French schools over a one-year period after 2 years of ESD implementation started in 2005, show a genuine trans-disciplinary approach; a gradual transition from EESD to ESD; a realization by all involved of the need to adopt a broader approach to the subject, both in and outside school. Local authorities and companies are particularly involved in this project through regional partnership agreements for promoting sustainable development through education, training and information (UNECE & UNESCO, 2007).

From 2011, a new label E3D for the school establishments can be obtained for those which adopt an initiative of sustainable development according to the requirements explained in Note of 2013 (Ministère de l'Éducation Nationale, 2011, 2013).

- Higher education establishments (HEEs) and label

The National Education institution has not a legislation rule on the educational content of university teachings (Barthes, 2011). Universities are free to decide their curriculum, but during the “Grenelle Environnement” process (Conference held in France in 2007); it became obvious that HEEs are also involved in raising awareness of sustainable development. In 2009, article 55 of “Grenelle 1” included: “Institutions of higher education should draw up a ‘Green Plan’ for their campuses. Universities and ‘Grandes Écoles’ (prestige university-level College with competitive entrance examinations)

may request a label based on sustainable development criteria” (Gouvernement de la République Française, 2009). The “Green Plan project” and the “Green Plan Reference Set” emerged as initiatives of the Conference of University Presidents and the Conference of “Grandes Écoles” . For already several years, and in a more or less structured way, universities and business schools have been launching initiatives to promote sustainable development. By grouping all these initiatives under a single banner, the Green Plan gives them additional legitimacy. This plan not only recommends integrating ESD into curricula and diploma but also asks establishments to act for sustainable development and suggests their research laboratories to favor studies in connection with sustainable development (Rio + 20 Committee, 2011).

3. Challenges faced by teachers and schools

On the educational plan, challenges are the ones of the interdisciplinarity, of school planning, of evaluation of knowledge, the question of the work in partnership and the training of the teachers. On the ideological plan, the difficulty is to teach a question which stays “socially alive” .

- Teachers involved in ESD

ESD is not taught as a full discipline. If the contribution of various disciplines do not seems to be a problem in primary schools where the same teacher teach all disciplines, it becomes more difficult to put in place in secondary schools with the disciplinary division. Indeed the transdisciplinarity of ESD supposes for the teachers to know well their discipline, to look for methodological convergences and to collaborate with the other teachers to make ESD projects. Essentially teachers of life and earth sciences, civic education, history and geography are involved in ESD. It appears that the more disciplines are involved the better it is for pupils to integrate ESD (EDD Académie Nancy-Metz, 2012).

Furthermore, ESD question to the professional and educational practices. Which contents for this “education

to”? The purpose of ESD is not actually translated into a simple transmission of educational knowledge but it is mixed of knowledge, citizenship values and behaviors (Pommier, 2011). For ESD, the teachings are based on class projects, personal project, outside class... It also needs collaboration between teachers, administrative personnel, local authorities, and environmental associations. It takes time to put in place such teaching and collaborations. This is one a reason why things move forward slowly.

- Changes in reference texts on education

Education of environment gradually evolved in French education system from EE to EESD and then ESD. This rapid evolution of the reference texts (circulars) and laws make it difficult to teachers and schools to adapt their teaching habits. Indeed the changes in teachers’ way of teaching take time and in particular when they appeared finally adapted to the circular of 2004, the new circular of 2007 brings a complete change in the philosophy and professional approach of the teaching methods (Leininger-Frezal, 2009). Moreover, reforms in schools syllabus are adopted quite often. The necessary changes are in some way too fast for the teachers and schools to adapt. The lack in basic training of teachers and the difficulty to give a trans-disciplinary view of the teaching may be on cause (EDUSCOL, 2011; Leininger-Frezal, 2009).

Also, different conceptions of environment, education and sustainable development coexist. These conceptions influence the way educators define and practice environmental education (EE) (Sauvé, 1996). Then, as a consequence to the vagueness in terminologies used in texts, every establishment sets up as it can in house, with support and collaboration of local authorities and associations (SNES, 2008).

- Evaluate the work and comprehension of pupils

The evaluation of knowledge, essential in any educational process, is strongly questioned by this theme of ESD. If the works available on the ministerial website EDUSCOL still constitute a first approach,

other collective reflections are required. Lourdel et al. (2005) analyzed student's sustainability comprehension to reflect pedagogically ESD in engineers' curricula and gave a tool that can evaluate the student's understanding of sustainable development concepts through cognitive maps which assessment is based on an approach via semantic category. This cognitive map method can be a useful tool to improve learning in quantitative terms but also in qualitative terms. Technically the students are asked to write and connect by arrows all the terms that they associate with the concept of sustainable development. Then by identifying knowledge gaps and misunderstood ideas improvement in the training can be allowed.

- The behavioristic risk

Even if the National Education department (Ministère de l'Éducation Nationale, 2007) asks teachers to give teaching with explanations based on known scientific knowledge and insists that the search of scientific objectivity has to remained the purpose of National Education, a diversity of ESD teaching exists. This can be explained by the ecological conviction and epistemological doubt of the teacher associated to a more or less socialized vision of sciences and to an educational mission considered as more or less political (Urgelli and Simonneaux, 2011). Many projects and actions lead to make an «eco-friendly gesture», one identifies «the best practices». Teachers face the challenge of not teaching the choices to pupils but to train them how to make choices by themselves and develop a critical mind. There is a risk for teachers to fall into propagandist speeches (SNES, 2008; Urgelli and Simonneaux, 2011).

- Training and documentation resources for teachers

In order to help teachers to have an objective teaching in ESD, training missions took place and evolved with the regulation of National Education. Since the Circular of 1977, EE was taken into account in the training of teachers (Ministère de l'Éducation Nationale, 1977). If teachers to-be have access to the update version of the educational policy, what's about teachers in service? In

the academic training initiatives ESD updated training are proposed to teachers in service but are not compulsory.

In face to the abundant information resources available on internet, and to preserve the objectivity of the information, the Ministry of National Education put in place a portal on the Internet with documents and detailed programs for children education according to their grades and for different disciplines: EDUSCOL (<http://eduscol.education.fr>; 2013). Sections dedicated to the ESD and documentation resources are also available on the Ministry of Education, Ministry of Ecology, Sustainable Development and Energy websites and other regional and departmental centers of educational documentation (EDUSCOL, 2011; CNDP, CRDP, <http://www.developpement-durable.gouv.fr>).

Moreover, as a resource for teachers, students or anyone who want to learn more, the Thematic Digital University: Environment and Sustainable Development Virtual University (UVED) was founded in 2005 supported by the Ministry of Higher Education and Research. (<http://www.uved.fr>).

- The case of Universities

In the absence of a rigorous structuring of the knowledge taught, the risks of normative or relativist drift are important, especially as the ESD reacts strongly to a social demand. Well formulated focuses are needed to reduce the risks to commit the university education in a restrictive direction, as "education in the good gestures". Without structure, the teaching may become then a lesson of morality favoring "the politically correct" to the detriment of the knowledge (Legardez, 2006).

There still a lack of training to teaching methods in Universities. Professors are researchers in the first place and teach the way they believe to be the right one according to the syllabus decided in-house by the University (Barthes, 2011).

4. The general public education

The education relative to the environment (ERE) aims not only at the personal fulfillment of the individual

but also at a deep social change. This global process allows acquiring knowledge, know-how and social skills who allow developing knowledge to act and a will to act convenient to the institution of a report human/society/ environment. There is also a real plurality of places where it is set up and number of stakeholders involved. The sociocultural activities, the teachings, the awareness campaigns, the information or the specialist and vocational trainings, are some of the practices used to educate the individuals to the environment. The public life, the television, the press, the public events, the conferences can all constitute spaces of ERE and stakeholders (Leininger-Frezal, 2009).

The French get more and more aware of the environmental impact of their energy consumption, for example, and the economic benefits of reducing it. Citizens and companies are also informed by programs from the government as the local waste prevention programs or the development of extended producer responsibility programs. New ambitious waste prevention and recycling objectives have emerged from the multiparty debate on environment (Delemasure, 2009). Five main materials: steel, non-ferrous metals, paper and cardboard, plastics and glass are collected (ADEME, 2010).

In order to help the population to get rid about environmental issues, structures and centers of information were put in place. For instance, in 2001 the first consultancy centers, "Espaces Info Energie" , opened at the instigation of the French Environment and Energy Management Agency (ADEME, 2012). Those centers provide free, objective advice on energy management and renewable energy to their visitors and support households in their energy saving projects.

With the technical and financial support of the ADEME, working closely with local authorities, the centers have multiplied since then. In ten years, the network has grown from 81 to 240 centers, providing better coverage of the territory. This has contributed to their success. More and more people are visiting the centers to ask

for advice – 7 million since 2003 – proving that this local information service is meeting a real need (ADEME, 2012).

5. Industries and businesses management

2012 was the year when the French government launched the ecological and energy transition. This should see people moving towards a new development model that takes into account the challenges of climate change and scarce natural resources (ADEME, 2013).

Having played a central role in environmental issues for two decades, ADEME, is active in the implementation of public policy in the areas of the environment, energy and sustainable development. The Agency provides expertise and advisory services to businesses, local authorities and communities, government bodies and the public at large, to enable them to establish and consolidate their environmental action. Raising awareness and better understanding linked to enterprise needs.

Whether through training or by publishing documents or by organizing events, ADEME capitalizes and makes available to professionals the knowledge that it generates to enlighten choices and orient decision making by political, institutional and economic players (ADEME, 2013)

The circular economy represent an economic model that tends towards the efficient use of all resources (materials, energy, water, air, land, etc.) through every stage of a product's manufacturing process, especially through eco-design, reasonable consumption and the use of used products as resources. Recycling is of course one of the fundamentals of the circular economy, along with eco-design, reducing waste at source and the functional economy (replacing property ownership with the use of a service, extended product service lives, etc.) (ADEME, 2013). Also environmental labelling is possible and can be a major tool in the ecological transition both by improving consumer information and thereby orienting their choices as well as truly becoming a lever in favor of enterprise economic and ecological competitiveness.

6. Support of research on ESD

Continuously, research on environmental issues brings new elements to help individuals to act for a sustainable development. Online resources on recent studies are available on the different internet portals like EDUSCOL or Educasource (<http://www.educasources.education.fr>) for teachers to build their lessons.

Following the UN Decade ESD recommendations French government and Research Agencies favor projects on sustainable development. For instance, as part of this work ADEME helps financing projects, from research to implementation, in the areas of waste management, soil conservation, energy efficiency and renewable energy, air quality and noise abatement. ADEME represents a public agency under the joint authority of the Ministry for Ecology, Sustainable Development and Energy, and the Ministry for Higher Education and Research. (ADEME, 2009, 2013)

7. Conclusion

The ESD is a global individual process, with multiple and varied expressions which concerns the environment taken in a wide meaning of a word and which questions the inscription of each in its life environment, on its connection with the others. In France the education to environment has evolved over the years and still evolving in accordance to international recommendations. Unfortunately, if the process of generalization of ESD is now well integrated in French education system, all the school establishments and collectivities in France are not committed equally in ESD. There are still difficulties and debates on ESD between educational policy and teachers to give an objective approach. But stakeholders of the French society are engaged in a way or another in a learning process to become a sustainable society.

This article does not aim to be exhaustive but wants brings some examples of implementations by France concerning the ESD.

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