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It takes a school to raise children to Education for Sustainability

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Abstract

Based on 15 depth-interviews conducted in French primary schools catering for children aged from 6 to 12 years, our results highlight the importance of the contribution of all educators in raising children's awareness and engagement to environmental issues. Educators such as teachers, but also catering staff and curriculum facilitators, play a central role in education for sustainability with a double commitment: awareness raising and behavioral change. Educators' commitment mobilizes existing and innovative resources to achieve their goal.

Introduction and background / rationale

Making children aware of Education for Sustainability has become a major concern for public authorities. Many organizations are increasing the number of prevention and awareness-raising programs. Schools appear to be a paramount environment for educating children to adopt good practices. Within schools, teachers are seen to play a key role in educating children towards sustainability. Teachers become sustainable and environment gatekeepers who have to support children to become "active agents for change". Thus, the role of teachers in education for sustainability is already clear, and this paper questions the role of other members of staff in schools (teachers but also catering staff and curriculum facilitators) in education for sustainability. We investigated their pedagogical practices in schools; how do educators raise children's awareness of environmental issues? What role do educators play in transmitting good practices to children in Environmental education? Which kind of pedagogical practices and tools do they use to engage children and help them to become more responsible?

1. Education for Sustainability

The 2030 Agenda for Sustainable Development declared by the United Nations reaffirmed the central vision of this century as giving everyone the opportunity to transform the world by learning the values and behaviors required for a sustainable lifestyle (UNESCO, 2017). In this regard, Education for Sustainability is a topic of growing interest in social marketing. The aim is to influence people's thinking and actions, and thereby contribute to sustainable decisions being taken (Boldermo & Ødegaard, 2019). Environmental education involves the development of knowledge, dispositions, attitudes and values to encourage children to undertake pro-environmental actions (Samuelsson & Kaga, 2008).

The UNESCO report confirms that education for sustainability is crucial for children, as behaviors and skills are established at a young age and their learning can impact their future choices and attitudes in society in a positive way (Samuelsson & Kaga, 2008). Recent research indicates that Early Childhood Education for Sustainability (ECEfS) is recognized internationally as an essential means for young children (Kim and Dreamson, 2020; Kahriman-Pamuk et al., 2019). It allows children to develop their attitudes and behaviors toward sustainability. Children are considered as "change agents for sustainability" (Kim and Dreamson, 2020). So, they can become active actors in sustainable development in our societies (Spiteri, 2021).

2. Teachers and the key role they play in Education for Sustainability

In 1978, the United Nations (UN) called for environmentally-educated teachers to become a key priority because of the potential role they could play in educating children towards sustainability. The status of teachers working with the youngest in our society is a central question. Teachers have the strongest power to influence children in the early years (Samuelsson & Kaga, 2008). Research investigated teachers' competencies, understanding and knowledge regarding Education for Sustainability (Boldermo & Ødegaard, 2019) and highlighted the vital role in promoting awareness, good habits and caring attitudes (Samuelsson & Kaga, 2008).

Teachers' goals in education for sustainability are to support children so that they participate actively and become more engaged as "agents of change" (Davis, 2015). To raise teachers' awareness about education for sustainability, research shows how knowledge, learning, training and language are important (Kelley and Williams, 2013; Samuelsson & Kaga, 2008; Sterling, 2001). Firstly, teachers need different learning experiences that provide them with the time, space, and appropriate supports to translate their learning into teaching practice, making education relevant to life (Kelley and Williams, 2013). Training is also central in developing a teacher's knowhow in sustainable education (Samuelsson & Kaga, 2008) and using the pertinent language is an important tool that allows teachers to ensure that they do not transmit static knowledge (Samuelsson & Kaga, 2008).

Thus, research shows how education for Sustainability is crucial for children and highlights the key role of teachers in addressing and preparing the next generation of children for the knowledge, skills, and attitude they will need to live sustainably. However, research has mainly focused on the role of teachers, without addressing the role of other school staff such as; heads of schools, or canteen staff that we named educators in our research. For a better understanding of education for Sustainability, we investigate how good practices are transmitted to children in schools and the role that educators play in developing good, sustainable practices.

| |
|--------------------------|
| Method / approach |
|--------------------------|

In this study, semi-structured interviews were conducted with 15 educators: 10 interviews in the Paris area and 5 interviews in Normandy. All the participants are part of the school's educational team (table 1). Three researchers conducted these interviews using the same guide. The interview guide was structured according to 5 axes : (i) Introduction of the project (ii) introduction about their profession (function, organization...) and the evolution of their activities over the past years, with a focus on sustainability and well-being issues (iii) section about the way to do prevention with children on these topics and to raise their awareness, (iv) a section on feedback from the programs/activities implemented to raise awareness of the children (difficulties and achievements) (v) a final section about what is needed to implement these actions.

Interviews lasted 45 minutes, on average. The interviews were transcribed, and their content was analyzed according to a common grid The grid contains the following items: (i) Observed evolutions on well-being issues (ii) Observed evolution on sustainable development (iii) example of practical implementation with children (iv) success factors (v) challenges/Difficulties encountered (vi) Needs identified to implement actions with children (methods, educational tools, time, human resources...). Signed consent was obtained for each interview. All the data was given an anonymous code for each participant.

1. The engagement of the entire educational team to implement sustainable education

Interviews with educators emphasize the key role of teachers in raising awareness of environmental issues "*The teacher has enormous power to change behaviors*" E 4. However, school personnel affirm that the teacher alone cannot have a strong impact on the sustainable education of children "*The whole teaching team must be involved. That the new ones can take hold of this issue of sustainable development*" E1. Educators play a central role in schools with a double engagement: awareness and behavior change. They support each other in the implementation of projects such as raising children's awareness of water-waste issues "*Children don't have time to play little games during the canteen. We take the placemats and give them to the teachers who distribute them in class to continue the activity*" E12. They also complement each other in the management of activities such as the follow-up of the educational gardens "*We complement the educational projects of the teachers' team... We did projects on Wednesdays like planting seedlings*" E14. This collaboration between educators requires organization, commitment and motivation on the part of the entire pedagogical team "*A lot of coordination is necessary between the canteen staff, the animator, the teachers*" E13 ; "*it is necessary to motivate the teams of the canteen and the teachers who deal with pedagogy in class*" E12.

2. The use of existing institutional supports in the everyday practice of educators

Numerous platforms are made available to educators by public authorities to raise awareness of sustainable education among children. This multiplication of documents offers them a large choice of pedagogical tools "*I got the poster of Manger-Bouger, in particular to adopt good food practices*" E4. These posters, which are on display for children to see, are intended to encourage discussion between teachers and their pupils. Posters are a resource that can be used to convey a number of eco-responsible messages: "*There are posters in the school to make children aware of water waste; we don't play with water*" E1. Educators also use educational kits such as the daisy chain or the food pyramid "*I use the food pyramid to explain that children should eat everything and in reasonable quantities, I also explain the composition of food and food waste*" E2. These documents allow the children to verbalize their practices and to become aware of those that should be adopted. They are therefore designed as facilitators of children's self-expression. Educators also take advantage of national events that are set up to raise children's awareness of sustainable development and then appropriate the tools proposed by the promoters of this event. The fact that they are linked to these events, and that they are anchored in a recurrent temporality, reinforces the effectiveness of the actions.

However, the educators told us that the multiplication of supports forces them to carry out time-consuming and complex research to select the most adapted educational tools "*There is no support and the preparation of the workshops is time-consuming, it requires a strong involvement, the information exists but I don't really know where to get kits and from whom?*" E4. They often feel that there is a tension between the pedagogical tools recommended by the authorities and their deployment in the field. In order to get around these difficulties, some of them create their own content, based on their personal and professional experience as well as their interest in certain topics.

3. An experiential approach mobilizing educators' agentivity

This approach is embodied in tailor-made workshops designed by the educators, such as the implementation of creative workshops to encourage children not to use plastic cups "*The cup is personalized and stored in a specific place so that the child has access to it as soon as he or she needs it [...]E1*". Photography workshops are also set up by some educators with the objective of raising awareness about eating a balanced diet "*I ask the children to take pictures of their breakfast and bring them to class to discuss it" E7*". These workshops create the pedagogical underpinning on which educators build, to create an innovative educational sequence. Experiential approaches where children are actors and participate in the production of educational tools ".*On Wednesdays, we made videos on how to turn off the taps, if it is more interesting to take a bath or a shower, waste sorting" E13*". Thus, thanks to a playful approach, this type of workshop raises children's awareness of water waste. In the same way, certain school activities are an opportunity to discover plants: "*The children plant seeds and watch how the plants grow and then they take them home. It helps them understand that plants are living beings, they are much more careful not to damage the trees in the yard" E7*". The involvement of the children in real practices promotes awareness of the environmental issues surrounding the protection of nature. *Last year, we were interested in a sailboat that collected waste on Lake Victoria" E7*". For the awareness raising on recycling in the classes, we called upon two external speakers" E1. The educators therefore allow themselves to be creative, freeing themselves from the contingencies inherent in the educational tools put in place by public authorities. In this way, they make the children feel that they are more directly involved in concrete actions by becoming "*agents of change" E15*".

Figures and tables

Table 1: Presentation of the participants interviewed

| | Location | Occupation | Gender |
|-----|--------------------------|------------------------------------|--------|
| E1 | Massy (91) | Head of school | Woman |
| E2 | Massy (91) | Teacher (Elementary) | Woman |
| E3 | Cachan (94) | Head of school | Woman |
| E4 | Le Havre (76) | Teacher | Woman |
| E5 | Le Havre (76) | Teacher | Woman |
| E6 | Le Havre (76) | Head of school | Woman |
| E7 | Paris (75) | Teacher | Woman |
| E8 | Issy Les Moulineaux (92) | Head of school | Woman |
| E9 | Issy Les Moulineaux (92) | Head of catering | Man |
| E10 | Issy Les Moulineaux (92) | Manager of after-school activities | Woman |
| E11 | Paris (75) | Educational manager | Woman |
| E12 | Issy Les Moulineaux (92) | Head of catering | Man |
| E13 | Issy Les Moulineaux (92) | Activity leader | Man |
| E14 | Fécamp (76) | Teacher (Elementary) | Woman |
| E15 | Le Havre (76) | Teacher (Elementary) | Woman |

Discussion and conclusion

Our research enriches the theories of engagement by focusing on the key role of educators as a whole, including teachers, heads of schools, catering staff and facilitators/activity leaders. To our knowledge, the latter have not been considered in previous research. We also introduced social marketing in research on Childhood Education for Sustainability.

Our results pinpoint the importance of engaging all the members of staff in schools for the implementing of education for Sustainability at school to be successful. We highlight the key role of educators in addressing and preparing the next generation of children so that they gain the knowledge, skills, and adopt an attitude that will enable them to live sustainably.

To raise children's awareness and commitment to sustainability, our results show that tools provided by public authorities are not enough. Our results emphasized that using them provides a framework for teachers and can facilitate exchanges with the children in the classroom, on the condition that the teacher can make them his/her own. To do this, he/she must have acquired both the knowledge and motivation that is required to educate children about sustainability. Otherwise, these tools fail to help them to structure and frame their initiatives in the classroom. The children's literacy on sustainability also needs both knowledge and motivation to apply it, in and out of school. This emphasized the key role of all educators through the implementation of practices based on children's consumption experiences.

Starting with children's everyday life, their consumption practices and social environment can allow them to experiment this education to sustainability in a practical way, and go further, beyond a simple acquisition of knowledge. When canteen staff make waste sorting a playful and collective activity, when activity leaders offer funny gardening workshops, they give teachers opportunities to link knowledge and motivation in order to engage the children on sustainability in a positive way. It starts from their experiences and leads to their greater involvement in the actions for change that are envisaged. It leads teachers to take on the role of activity leaders/facilitators, accompanying the children's creativity and changing their relationship to authority, by giving the pupils a greater say in finding the solutions that can be developed to help them to change their behavior. They also allow teachers to avoid the difficulty of governing the dietary and environmental behaviors of their pupils, by contextualizing norms and values that would otherwise sometimes be difficult to apply in the environments in which some children are being raised.

Capturing these creative approaches to feed an institutional communication with a reverse down-top approach is an interesting approach which helps to bring new ideas to the discourses carried by the public policies. On the other hand, the commitment of educators faces a challenge. Indeed, although they have pedagogical skills, their scientific knowledge limits the potential of their practices, especially in experiential terms. In view of this, it seems important to provide training for teachers, or to support these approaches by setting up educator/expert pairs. The innovative practices implemented by the educators also suggest ways to introduce workshops that promote creativity, based on methodologies rooted in design. In order to validate these perspectives, it will be necessary to continue our investigations by linking classroom observations and interviews with educational personnel

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