TEACHING CLIMATE CHANGE IN CLASS, A MUST AND A CHALLENGE

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Abstract. *Teachers face a difficult but imperative task. All of them have to figure out how to talk about the complex forces behind climate change and its effects on cultural, safety, prosperity, and progression. They have to teach youngsters their possibility and the community's ones how to act and become an important pillar in reducing the magnitude and intensity of climate change. Consequently, it is crucial to capitalize the training techniques that education requires for sustainable development, to take learning out of the classroom and into the community. Educators must act in advancing the school's overall response to climate change, which involves focusing on climate and sustainability in the curriculum. In this regard, it is essential that the program contains strong and clear guidelines for the future. Teachers need to help learners adapt to climate change and the climate conditions of the future. Education has a crucial role to play in this difficult task. Its role is threefold. Firstly, it must play its part in developing social and individual capacities and attitudes towards climate change mitigation in order to prevent maximalist global warming projections in the near future. Secondly, skills development it is crucial as well as capabilities, and attitudes to adapt to the obvious and imminent climate impacts. Thirdly, it carries out a permanent position in stimulating and strengthening understanding and attention to the evident facts of the global warming. The education for the global warming targets a clear strong direction, namely a determinate commitment of the academic community in HEIs. It is also highlighted by the diversity of the variety of educational methods and approaches. Teachers who experience the teacher's climate change education course will be involved in a wide variety of ways that will use both intelligence and training skills. Their mission is a very complete one and the result must be seen in the consequence of their student's actions and attitude in the near future.*

Keywords*: teaching, climate change, education, learning, language*

INTRODUCTION

UNESCO aimed in the last 10 years to target the development of educators on all levels and cycles of study, prioritizing climatic changes and global warming, acknowledging that education and training within this area must be redefined and reoriented, so that the future must be a sustainable one.

Despite all the procedures for a better condition of the educators, it could not really produce the desired results in practice. Although adopted by enthusiasts, teachers' education for sustainable development remains rare, and where courses exist, they often fall within a discipline rather than an interdisciplinary framework (WALS,A., 2009).

While professional development in sustainable development education is in the adolescent stage, teacher training in climate change education for sustainable development is in its infancy, although we do it constantly in our university, at the special study programs and specific areas of study related to climate change (SCHNACK, K. BREITING, S. ROLLS, S., 2009). It is currently clear that there is a need to respond to the challenges of climate change through systematic teacher education programs that are not limited to a single subject, and as we are a life science university, running several study programs in three languages, it is highly

important that the future engineers within the area of environmental protection and climate change are aware of the importance of the climate change. Once it is properly transferred, knowledge related to the importance of climate change will evolve and like the seed, will give results. We are all aware of the importance of climate change, but for the future professionals within the field, it is not enough. (OXFAM INTERNATIONAL, 2009). The access to information is wider than decades ago, but nowadays, even we benefit from this access to all data and information, from the supreme authorities and forums in the field, such type of vital information and knowledge should be thought properly in class, evaluated and transferred, disseminated. (ROMM, J.J., 2007).

MATERIALS AND METHODS

The main method used is an analytical one, with structured descriptive elements within a program/schedule.

A program or a schedule of a course should include four distinct characteristics:

1.It gives the possibility to the educators to have a better idea and understanding on the causes, and the impact of global warming, embracing a holistic approach.

2. Educators and teachers face several pedagogical challenges, using different techniques that they are experimenting, being able to develop more the entire educational process.

with and that they can use in their own school environment. This includes their engagement and that of their students in the whole university and university-in-community approaches.

3. Educators will develop and to ensure student learning within the community.

4. Teachers need to develop transformative and forward-looking capacities to serve as facilitators in learning about mitigation, global warming adaptation and disaster risk reduction.

RESULTS AND DISCUSSIONS

Why integrate climate change education with education for sustainable development? UNESCO has established the Climate Change Education for Sustainable Development (ECCDD) Program, recognizing the crucial role that education and awareness-raising must play in reducing the threat that climate change poses to a sustainable future. (HILLMAN, M., FAWCETT, T & RAJAN, S.C., 2007).

The priorities of the ECCD Program are:

1. Reinforce the ability to support the education at all levels, especially among students, the future professionals within the area, in order to create a better awareness of global warming;

2. Support and strengthen new pedagogical approaches so that teaching global warming becomes a must;

3. Increase the acknowledgement of climate change and strengthen non-formal education programs using even the social media networks;

Education for sustainable development requires imagining change while looking at the past, present and future at the same time. His vision is that of the trans curricular and interdisciplinary treatment of precepts and principles of sustainability.

Why does learning about climate change require a local dimension? Real and practical experience allows for dynamic learning. This is reason enough to include a local perspective in learning about climate change for sustainable development. But there is a more important reason.

Why is the best approach to learning about climate change as part of a comprehensive school approach? There has been a very strong advocacy for the school's (or institution's) holistic approach to ESD involving the entire school community – students, teachers, administrators, parents and members of the local community. (LOPEZ, 1998, P. 132)

The school's comprehensive approach is also seen as essential to effectively address the challenges of climate change and demonstrate the urgency of practical action. The term curriculum, as has already been said, encompasses various aspects of climate change, from staff to global, which are included in existing subjects and/or integrated into inter-curricular spaces. To this can be added new curricular elements – actions within the school in the service of climate change and the participation of students in the campus, community, and cultural spheres. (KAGAWA, F. & SELBY, D. (EDS), 2010.

The term campus encompasses various initiatives to neutralize the school's carbon footprint, ecological and landscape initiatives (e.g. tree planting) and the transformation of unsustainable institutional practices (in building design and use, energy use, resource use and purchasing, restoration and transportation). Students are encouraged to engage directly in climate change adaptation and mitigation initiatives within their school as part of their non-formal learning, which has an impact on formal learning. (LOTZ– SISITKA, 2010, PP. 71–88).

The campus could also become part of the formal curriculum with, for example, student participation in food cultivation, the design and installation of water conservation measures, the design and management of a garden focused on preventive health, the creation of a nature conservation area and the search for a level of school commitment to "reduce, reuse, recycle", as well as the search for ways to reduce the school's dependence on fossil fuels before implementing change initiatives. The term community encompasses partnerships for school/community action. (PIKE & SELBY, 1988).

Experiences of community-based student projects also have an impact on formal education programs or are carried out as formal education programs. For example, students can play a key role in an internal consultation process on the development of a text on the school's mission in Curriculum Campus Culture Community Figure.

Global warming education requires the learner to critically analyse his or her own assumptions, perspectives and worldviews as well as those of others. Its pedagogy therefore consists in preparing learners to face uncertainty in the context of complexity. The idea of learning as an open process is inherent in uncertainty. Our learning does not provide for a fixed and definitive outcome – just a learning that adapts what we think before other elements of learning arrive that will lead to a change in perception and understanding. The solutions are therefore temporary adaptations in a constantly changing world (PIKE & SELBY, 1988, P. 35, ȘMULEAC, 2020, IMBREA 2011,). Skills for open learning.

There are several skills learners will need for open learning about climate change in relation to sustainable development fall into six categories:

• Information management skills: receiving, formulating and presenting information; organize and process information, evaluate information.

• Critical thinking skills: critical data evaluation, creative thinking; Problem solving make ethical judgments; decode and deconstruct media messages; make decisions; systems/relational thinking; see the particular in the whole.

• Action skills: agent of change / advocacy for change; campaigning, knowing how to get involved (critical evaluation of action choices); adaptation/prevention of risks.

• Interaction skills: building consensus and negotiating; know how to assert oneself; listen; cooperation; Conflict management empathy and solidarity.

• Forward-looking skills: imagine; extrapolate; plan; retrospective analysis (ability to place oneself in a desirable future and find ways to achieve it).

Objectives of the course:

• To learn at appreciate nature, the magnitude and the objective and the operation of ECCDD.

• Show comment ECCDD can be introduced in all the subjects of the curriculum, and equally as part of the Contexts learning interdisciplinary.

• Develop the confidence some Teachers and their capacity at facilitate one learning oriented towards the future.

• Allow the Teachers to teach the change climatic in frames Environmental, Economic, Social and Cultural. (LÆSSØE, J. ET AL.,2009)

• Allow the Teachers to teach dimensions keys of the change climatic some Risks of catastrophe, justice climatic and give to Teachers the Capabilities to animate discussion and reflection on each dimension in class and in a practical commitment in outside the class.

• Show the Teachers comment elaborate one dimension of partnership local and communal important in ECCDD. (SELBY, 2007).

• Demonstrate the Teachers the means to integrate the voice and the prospects for persons of the world whole, especially of youths in the speech on the change climatic in class, especially on the question of the realization of justice climatic. (PIKE& SELBY, 1988, PP. 47-60).

• Develop the confidence and the capacity of some teachers to work with the pessimism, the cynicism when feeling powerless in the face of the change climatic and to encourage skills, empowerment and resilience.

• Reinforce the skills and the confidence in some teachers for facilitating one interactive and participatory learning.

Tackling climate change might involve towards empowerment and action at the beginning of this module, participants practice getting their students to say what their concerns are for the future, to allow them to express their feelings of hopelessness and helplessness in the face of climate change and to translate those feelings into determination and empowerment. A role play offers participants the means to practice dealing with denial and conflicting responses related to climate change. The skills and learning approaches adapted to the ECCDD are presented based on the experience accumulated by the participants during the six Days. A planning tool based on ECCDD is proposed, the aim of which is to bring about change at school level. The course concludes with the sharing of ideas for ECCDD approaches to be adopted at the level of the school itself and considering the university within its community. Participants are then asked to commit to concrete short-medium- and long-term plans for the integration of ECCDD into their schools and communities.

A careful, structured organization of discussion and reflection is perhaps the most difficult of all competences. The teacher trainer must set an example and show what a practice of good restitution consists of, drawing the attention of the participants to the means and reasons for carrying out restitution according to particular modalities. A practitioner capable of conducting a reflection A good organization of participatory learning asks the teacher to think about how he animates it, to identify what has worked well and the improvements that could be made in the way he delivers his course in the future. It is an excellent practice for the teacher trainer to be seen as personifying a practitioner capable of leading a reflection and showing the participants what this entails in practice. Being reflective involves in part the creation of an open and conducive atmosphere to obtain and receive feedback from participants.

Notes on the animation of the course The guiding principles for preparing and animating all the activities are included in the program of each day. The teacher trainer should pay particular attention to what appears under the title Facilitator's Guide in each activity description, in order to optimize learning and ensure a good restitution of the activity. With the program of each day, we find the teaching materials for each activity.

It is only towards the end of the course that the teacher trainer presents the logic of the learning approaches used. To strengthen the participatory element of the course, it is essential that the trainer is himself an example of teaching the values of participation, the means and ways of being and interacting through his teaching. Apart from occasional short contributions, it is necessary to use an open dialogue and share views and ideas. The teacher trainer should from time to time join the participants! The "support" is also the "message"! Experience shows that teachers familiar with participatory learning learn relatively quickly to prepare and facilitate activities, but they need much more time to confidently approach the restitution of the learning experience, which is essential to optimize it. Meticulous and structured facilitation of discussions and reflections in class is probably the most difficult of all skills. Teacher trainers must show what good restitution is and from time to time draw the attention of participants to the means and reasons for carrying out restitution in a particular way. A good animation of participatory learning also asks the teacher trainer to think about its animation, to identify what went well and the improvements he could make to his teaching in the future. The teacher trainer should be seen as a practitioner who thinks, engaging in self-reflection in front of the group and should also allow participants to practice what this implies. The creation of an open and conducive atmosphere is part of the reflection to obtain and receive feedback from participants. Therefore, an evaluation sheet to be completed and returned for each day of training has been created and at the beginning of each day it is proposed to review the module of the previous day. At this stage of the programme, the trainer will thus have the opportunity to show that he is thinking about his teaching and to ask the participants to express their ideas and opinions in their self-reflection journal. At the end of each day, participants are asked to read the activities of the next day's course.

CONCLUSIONS

The scope and complexity of climate change pose enormous challenges for educators. His understanding requires them to cross the traditional boundaries of school subjects and address topics such as geoscience and the media, and to know the process of change and the understanding of the dynamics of the system. The way in which society is currently responding to climate change provides an ideal context for learning from it.

Climate change is the most complex and far-reaching issue facing humanity today. It is essential that we help young people to better protect themselves against this challenge and that we use their energy, creativity and need to help us meet it. While climate change presents educators with significant challenges, they also provide valuable opportunities to advance the evolution of the profession to help students understand it and encourage them to find solutions in their schools and communities.

The scope of climate change and its impact is immense. Everything we do depends on a stable climate. To understand climate change and its impacts, we will need to understand the many related systems, including physical systems (glaciers, rivers, sea level), biological systems (terrestrial, marine) and human systems (agriculture, energy, health, economy). This complexity gives rise to countless learning opportunities, whether it is dissecting the above-mentioned individual systems, developing critical thinking and media literacy skills, or exploring multiple sources of information to truly understand the full scope of the challenge.

Changing worldviews and addressing climate change requires challenging many of society's norms, including our definition of progress based on systematic perspectives, takes into account local and global factors, and cultivates respectful ways of addressing controversial opinions—approaches that are all transferable to support student development in other fields!

Comparison between conventional and transformative learning, conventional teaching, which relies on the transfer of information and the discovery of "the right" answers, does not suit well the complexity of teaching climate change.

Alll the procedures and the current strategies often involve understanding the experiences students have had. Educators, who are themselves grappling with the issue of climate change, act as facilitators and guides for students.

School learning is connected to the real world, allowing learners to cultivate their creativity and innovation when confronted with the complexities of life.

Learners, especially students enrolled in specific study programs, will develop a proper attitue and skills needed to address problems for which there is yet no solution, the same skills they will need to be successful as individuals, citizens and entrepreneurs.

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