



Proceeding Paper

# Competences and Capabilities: A Relevant Resignification in Education for Environmental Citizenship <sup>†</sup>

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**Abstract:** This paper proposes elements for the re-signification of the concept of competences from the human capabilities approach proposed by Martha Nussbaum, within the framework of the proposal of education for environmental citizenship developed by the European Network for Environmental Citizenship. For this purpose, the notions of competences and capabilities found in the book *Conceptualizing Environmental Citizenship For 21st Century Education* are analysed. From a more holistic perspective, the competences could integrate elements of reflection such as freedom of choice (with sensitivity to cultural pluralism), planning their lives (as part of environmental action planning), looking at the context of opportunities (linked to participation and action), emotional development, and the opportunity to enjoy pleasurable experiences. This document is part of the first author's doctoral research at the Universidad Pedagógica Nacional de Colombia.

**Keywords:** competences; capabilities; human capabilities approach; education for environmental citizenship



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## 1. Introduction

Sometimes the word “capabilities” is used to define or exemplify what competences are. At other times, capabilities are understood as people's internal abilities. The truth is that a distinction is rarely made between capabilities and competences. In the education literature, greater emphasis has been placed on the development of competences than on the development of capabilities [1,2]. This research is concerned with redefining competences and capacities, given that the analysis of this relationship could integrate new and significant elements in the process of understanding and projecting the processes of training environmental citizens.

The human capabilities approach developed by Martha Nussbaum [3–5] is taken as a point of reference in that it values, from an integral perspective, the totality of opportunities available to a person to choose and to act in his or her specific political, social, and economic situation. In this perspective, the author proposes the interaction of three different types of capabilities: basic capabilities (innate faculties of each person), internal capabilities (traits and skills trained and developed in interaction with the environment), and combined capabilities (combination of internal capabilities and the social/political/economic conditions that allow them to function). This in principle calls into question referring only to capabilities as innate capacities as they are only one of the forms of expression of capabilities. Furthermore, it calls for the context to be considered in the process of defining capabilities. It is of no use to develop people's capability to make choices (internal capability) if they cannot exercise this capability in a context (combined capability). In this sense, the capabilities approach involves in a decisive way what a person is able of being and doing in a context, and thus the freedoms and opportunities to choose and to act.

In addition to capabilities, Nussbaum [3] proposes the term “functioning” to refer to the products or materialisations of capabilities. In other words, that which can be observed in people because they refer to the way they are or act in accordance with their capabilities. For example, if people have the capability to choose, the functioning would be that they put the capability to choose into action. From an educational perspective, this approach involves relevant reflections on the cultivation of freedom and the construction of a citizen of the world with the capability for understanding, sensitivity, and awareness of cultural difference; the capability to live in a close and respectful relationship with other species; the capability to contrast alternatives and have an active ethical enquiry; and the capability to place justice above political convenience [4].

## 2. Materials and Methods

This theoretical study analyses the notions of competences and capabilities found in the book *Conceptualizing Environmental Citizenship For 21st Century Education* [6] in the light of the notion of the human capabilities approach put forward by Martha Nussbaum to enrich the view of education for environmental citizenship. The analysis is based on the reflections on the coding process written by Packer [7], the suggestion of a pre-analysis process and reflections on inference proposed by Bardín [8], and the levels of description proposed by Martínez [9]. The pre-analysis stage includes an initial exercise of reviewing the frequencies of the concepts, using “competenc” and “capabilit” as incomplete search words.

## 3. Results and Discussion

In a first approach it was found that the word “competences” is mentioned 119 times while the word “capabilities” is mentioned only twice. The two times that the word “capabilities” is mentioned, it is again related to skills, especially cognitive skills that are required for action. This distances it from the definition of capabilities proposed by Nussbaum [4], since for the author capabilities are not simply abilities residing inside a person, but also include the freedoms or opportunities created by the combination of these personal faculties and the political, social, and economic environment.

Regarding the subject of competences, it was found that this term is related in the text analysed specially to processes of (a) knowledge building; (b) democratic activism; (c) values formation; (d) identity building; (e) types of education; and (f) evaluation. Each of these was taken as an emerging category for the analysis. Considering the 10 central capabilities proposed by Nussbaum [4], it could be inferred that, in this case, the term competences is in tune with capabilities such as capability for thought, capability for practical reason, capability for affiliation, capability for relationship with other species, and capability for control over one’s environment.

### 3.1. Competence and Knowledge Building

This category refers explicitly to (a) an interdisciplinary and systemic approach; (b) co-production of new knowledge between experts and citizens; (c) include social knowledge; and (d) a basic understanding of the nature of science and acquiring basic inquiry skills. From the capabilities approach, this relationship between competences and knowledge could integrate into citizenship education, in addition to the need to know the history and social facts (through the cultivation of knowledge about other ways of life), a capacity for receptive imagination that allows us to understand the motives and options of people different from us, without seeing them as strangers who threaten us, but as beings who share with us many problems and opportunities [6]. Using the imagination to understand another person’s emotions and desires and wishes or the freedom to imagine citizenship [5] would be an important contribution to building environmental citizenship.

### 3.2. Competence and Democratic Activism

This category refers to competences such as deep civic participation, empower people, responsible actions, participate in complex thinking, practise their environmental rights

and duties, develop the willingness, combination of youth activism with citizen science, consider inter and intra-generation justice, the application of ethical principles, and planning and taking action on environmental issues they find relevant. These competences are in line with the capability approach in their focus on empowerment, social justice, deep civic engagement, and the application of ethical principles. However, they could also be redefined by tacitly including the cultivation of freedom. The capabilities approach is not only about participation and action, but also about paying detailed attention to respect for freedom of choice [4]. Non-action can also be a choice, as part of people's freedoms. The capability approach considers how the individual in his or her context can lead a life that he or she has reason to value [10].

### *3.3. Competence and Value Formation*

This category includes universal values (social justice, wisdom, synergy with nature, equality, inner harmony, responsibility, creativity, self-respect, etc.), empathy towards the marginalised (empathic thinking), cooperation, collaboration, and communication. In this sense, it shares with the capabilities approach the proposal of justice as a moral end for the construction of a citizen of the world, and therefore deals with ingrained social injustice and inequality. Another common ground is that it is also decidedly value-pluralist in that it argues that capabilities that are of central importance to people are qualitatively differentiated from each other and cannot be reduced to a single numerical scale without being distorted [4]. This category also embraces two of Nussbaum's central capabilities related to the capacity for affiliation and the capacity to be able to live in a close and respectful relationship with animals, plants, and the natural world [4].

### *3.4. Competence and Identity Building*

This section deals with two perspectives: (a) environmental identity; and (b) identity as agents of change. Identity is developed through the accumulation of experiences, stories, classroom materials, and ways of addressing recurring problems, knowledge, and competences connected with fostering environmental citizenship; also, it mentions that identities serve 'basic needs', including a sense of belonging, sense of competence, and autonomy. This category is related to the central capacity of control over one's environment and political power to participate effectively in the political decisions that govern our lives and to the protection of freedom of expression and association from the perspective of autonomy. Control, in turn, from the perspective of environmental citizenship, must be maintained through a permanent questioning of the forms of domination of the environment that have resulted in the present serious environmental crisis. Thus, it is important to include the possibility of planning one's own life (individual agency) in permanent connection with an environmental agency, in order to maintain a commitment to both the individual and the environment. It is also important to enable the contexts for effective participation on the level of equality and mutual recognition. It is not only about people having the internal capacity to participate, but also the possibilities in their environment to do so.

### *3.5. Competence and Types of Education*

This category coincides with the capability approach in the need for education as a way to awaken critical thinking; it addresses some questions about how education and teachers can promote competences and proposes pedagogical alternatives such as project-based learning (PBL), inquiry-based learning (IBL), action-based and task-based learning, task-based interventions, curriculum in action, dealing with real controversial issues, place-based education, civic ecology education, ecojustice pedagogy, action competence, and socio-scientific inquiry-based learning. All of these are intended to empower educators to act as formative agents of environmental citizenship, through collaboration in planning, implementing, and evaluating of projects.

### 3.6. Competence and Assessment

This category addresses two ideas: a) students can also assess the efficiency of their applied education for environmental citizenship pedagogical approach; and (b) assessing and measuring the outcomes of education for environmental citizenship is also of crucial importance. However, it is not clear which evaluation approach is proposed from the perspective of competences in education for environmental citizenship.

Finally, from the capabilities approach, the integration of elements related to emotional development, play (being able to laugh, play, and enjoy activities), and physical and reproductive health could also be considered as important capabilities in the formation of citizens, and should therefore be taken into account in the framework of the competences.

## 4. Conclusions

The capabilities approach integrates elements that could be interesting to integrate in the process of education for environmental citizenship, such as freedom of choice (with sensitivity to cultural pluralism), planning their lives (as part of environmental action planning), looking at the context of opportunities (linked to participation and action), emotional development, and the opportunity to enjoy pleasurable experiences.

Although capabilities differ from competences in that they respond to an individual's internal demand to freely choose their own way of life and are not guided by external demand [10], competences and capabilities can enter a dynamic of permanent dialogue as long as they have common stakes towards the formation of an environmental citizenship, and question the instrumentalism driven by the economy worldwide [11].

Bearing in mind that capabilities refer to freedoms and opportunities, and competences are closely related to actions, competences could be conceived as functions or materialisations of capabilities. Conceiving first the notion of capacities in order to then think about possible competences could be a good way of recognising the plurality of contexts, the freedoms of individuals and reflecting on the opportunities that open up in contexts in order to exercise environmental citizenship in a real way. It is therefore a question of generating a dynamic of permanent dialogue between capacities and competences to plan more comprehensive training actions based on education for environmental citizenship.

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