

NATURAL PARKS: THE NECESSARY TRANSFORMING CONCEPTUALIZATION IN THE PRIMARY AND SECONDARY EDUCATION

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According to this case study developed in Valencia, the concept of natural park as a figure of natural protection area contrasts with the perception that the students of primary and secondary school has about it. Through the analysis of questionnaires, developed social representations are detected, showing a confusion between natural park (from abiocentricparadigm) and park (from an anthropocentricparadigm). Therefore, the necessary review of the definition of the term “natural park” arises in order to contribute to the development of a transformative view from the educational environment in favour of sustainable attitudes and behaviors.

JUSTIFICATION

Knowledge about the relationship between the life of humans and the physical environment has been developing since Humbolt (1874) and Ritter (1835) impelled her studio in the geographic discipline but has not been taken seriously until it has seen the importance involves addressing social and environmental problems around us.

The various geographical paradigms (positivist historicist, neopositivista, humanist, radical ...) have assumed contributions from the various teaching approaches involve studies and concerns on issues related to geography, methodology, associated research and didactic models (Capel, 1981 ; Ratzel, 1889).

As professors and researchers at the university level, the authors of this article signatories formed a group of interdisciplinary environmental education and social education that is related to the Didactics of the Experimental and Social Sciences from an interdisciplinary perspective and with their own different approaches to research in the school, based on three themes:

- Participation and learning in the environment
- Subjective spaces and social representations
- Changing attitudes towards sustainability

We are interested in the geography of perception and behavior from a social and critical approach attributing a role for innovation and educational research as factors that facilitate social change. We try to cover concepts such as perception of the environment, cognition, motivation, behavior, subjective space, mental image, conduct and mental maps, as well as their relationship to emotions and emotional education; To achieve this, we conduct surveys and studies based on models related to psychology or sociology (Campo 2012, Morales, Caurin and Souto, 2013 and Santana, 2014). We also intend to break new ground on issues or research methodologies in the analysis of environmental education using methodologies close to the History didactics, such as heritage routes (Colomer, Hurtado, song and Torres, 2014).

Environmental education is being incorporated increasingly interdisciplinary way in the education system (Gonzalez, 1996; Caurin, 1999; Hernández, 2005; Caurin, Morales and Solaz, 2012; Morales Souto, Caurin and Santana, 2015, Vilches, 2015) combining development and environment and integrating social science with Relationships Science, Technology and Society, linking all areas of the curriculum through a transversal educational approach.

Considering the approach of Calixto (2012), our line of work related to the development of knowledge of consciousness from the social sciences, with the aim of promote citizen participation as the main agents of social transformation towards a sustainable future for our planet.

Through this study we try to open a fourth thematic focus related to the conceptualization, as shown in previous studies (Santana, 2014; Santana, Morales and Souto, 2014) related to the stage of primary and secondary education, selecting a sample, represented by students of these stages will help to identify problems of conceptualization and information that allows us to design future lines of work aimed to rework and clarify their own social representations.

We value the importance of social representations in the process of conceptualization of “natural park” and the possible use of the same for the evolution of this concept. Also, we suggest a series of didactic proposals.

PROBLEM STATEMENT

The concept a Natural Park is learned in schools contrasts with the information that students constantly receives from his own existential reality, as human service park for their enjoyment. This confirms what many authors continues to underscore: the convenience of the fieldwork to confront reality with the mental ideas of students (Delgado and Rodrigo, 2012). This traditional “outputs to the natural environment” to move to concrete actions based on interdisciplinary didactic approach with a transformative aim (Garcia de la Vega, 2004).

Previous studies (Santana, 2014; Santana, and Morales Souto, 2014) have shown the idealized representation of the landscape. Therefore, in this research we want to verify the conceptualization attributed to this idealization, identifying possible indications requiring consider revising the term. To achieve this, the sample was extended to secondary education with the aim of show whether there is continuity of such evidence, which would prove that compulsory education does not remedy such errors in the conceptualization of natural park impeding the identification of problems social and environmental, and therefore the development of behaviors aimed at their preservation and care authentic.

In this study we propose the following objectives:

1. Know the degree of understanding of the concept of natural park that students possess; We carry out a questionnaire to determine the degree of understanding that students have around the concept of natural park.
2. Identify the social representations on which the students builds the image of the object of study.
3. Identify possible misconceptions by analyzing the items established in the questionnaire.
4. Propose didactic proposals that contribute to transforming this concept conceptualization

Based on these objectives, we intend to corroborate the following hypothesis: the social representations that students in primary and secondary education have on natural parks do not match the concept a Natural Park as a form of protection of a natural area, thereby hampering the development of a transforming vision that promotes sustainable attitudes and behaviors, as demonstrated by this study of cases.

THEORETICAL FRAMEWORK

The sustainable practice requires personal and social reflection of how we construct the conceptualization of our landscapes and therefore in the understanding of the interaction with the environment is necessary to analyze the subjective space and social

representations through spontaneous conceptions to reflect paradigms from which we build our knowledge of geographic space. Following this line of thought, Barratt and Hacking (1999, 2000) have been demonstrating for some time that a geographical education addressing the spontaneous conceptions of the daily average improves understanding of the local environment and is capable of modifying the aspirations and behaviors students in a real benefit to local sustainable development. In this respect, the education legislation can contribute, from the first level of detail, to establish a number of parameters for the processes of conceptualization of social notions that are most appropriate for sustainable interaction with our environment.

Understanding the geographical area tackled globalized way LOGSE (Spanish education law, 1990) and through competence in the LOE (Spanish education law, 2006), allows the understanding of the complexity of the processes of interaction between humans and their environment and the connection between the local and the global perception.

By contrast the LOMCE (current Spanish education law, 2013) hinders this global vision of the environment and promotes others disciplinary approaches. It is based on the use of resources from a naturalistic and anthropocentric conditioning and limiting interaction processes and glocalization, favoring the traditional notion of assessing the economic dimension over human values.

Moreover, if we look at the context of globalization, only addressing the fragmentation and homogenization processes involves limited understanding of the global effects, which address the processes of glocalization can reinterpret and understand local effects of globalization. Therefore, the approval of the LOMCE (2013) shows the inconsistency of aspiring to the integral formation of students and globalizing primary from the compartmentalization of knowledge (Gavidia, Solbes and Souto, 2015). Thus hindering a basic formation in primary education which will continue courses in secondary and high school.

The contextualization of this study in Valencian Community requires supervise the concept of natural park established in the current legislation, which regulates the protection, with the intention to demonstrate its paradigmatic positioning.

Law 11/1994 of 27 December on protected natural areas in Valencian Community Valencia defined in Article 7 natural parks as “natural areas” representative for their ecological, cultural and / or landscape values. “These spaces need to be managed prioritizing “the values to be protected” on the activities of visit and enjoyment (BOE 33: 4062). Furthermore the legal definitions identified “as natural all those spaces where human intervention, past or present, has not come to significantly alter the presence and operation of the other elements, abiotic and biotic, that comprise them” (Toulon and Lastra, 2008, p. 2). In summary, in the conceptualization of the natural park prevailing meaning of natural space.

According to the Royal Spanish Academy dictionary, the definition of the ornamental garden prevails purpose of cultivating plants, adding to the definition of park, the definition of recess. This meaning that can lead to identifying natural park with anthropic park (park / garden) at the service of man.

In this research we could verify the students expressed confusion between natural park (from a biocentric paradigm) and Park (from an anthropocentric paradigm). We do not want to deny the human impact of the medium, but demonstrate the need to reconsider the biocentric paradigm and the necessary globalizing approach that allows us a more critical understanding of the medium. School can contribute to this effect from the reflection of the conceptualization of social notions, in this case referring to the concept of natural park, contrasting our social representations with reality.

If this matter is addressed from the social representations shows that they are formed as the result of interactions that are set to live in society, becoming part of common sense to stand in the collective memory of a community. Reigota (1990) identified three types of social representations regarding the Environment: naturalists, anthropocentric and globalizing. The first two representations (naturalists and anthropocentric) approach the medium from a disciplinary perspective and an anthropocentric paradigm. While globalizing social representations are constructed from interdisciplinary proposals in the framework of a comprehensive and dynamic biocentric paradigm.

It seems clear that “there is an interrelationship between sensory perception, cultural cognition and territorial behavior” (Morales, Caurin and Souto, 2013, p. 93) whose study will advance the objectives of environmental education. Therefore, from spontaneous conceptions to understand how it is shaping student learning becomes a necessary condition for it.

METHODOLOGY

Case studies is done by selecting a heterogeneous sample:

- Two groups of 3rd primary cycle consists of 70 people.
- Two groups of 1st year of secondary education consists of 98 people.
- Two groups of 3rd year of Secondary Education degree consists of 55 people.

We use an analytical tool based on a questionnaire of open questions with items that provide information about the social representations that learners have developed on the concept of natural park. Thus the questions are designed with the objective of obtaining information on the level of knowledge that students possess on these protected

areas. Also the analysis of the answers to interpret the items described to analyze the perceptions that students possess about these natural areas, from the treatment received and their experiences.

Therefore, the analysis focuses on identifying how it taking shape student learning through knowledge of spontaneous conceptions to detect if there are misconceptions about the term “natural park”.

DISCUSSION AND ANALYSIS OF DATA

We show the results obtained from the analysis of the items. In its interpretation we have considered the presence of words in the answers that are associated directly to the meaning of the corresponding item.

In the first interpretation, we note that the vast majority of students said that knows define what is a natural park. But fewer than half of the students related to a protected area; there is continuity in responses between the primary and secondary levels. In this matter the poor learning is evident in the construction of this concept; also affects the social representation that students have this natural enclave, thereby conditioning the process of perception and interaction with it.

This questionnaire has been validated during the 2013-2014 course on 32 students of the 3rd cycle of CEIP Vincent Ricard i Bonillo (Benetússer, Valencia) and 27 students in the group of second year of the Grade in Primary Education Faculty of Magisteri, University of Valencia.

Some students not propose a definition of natural park. Of which provide a definition, fewer than half related to the protected space; there is continuity in responses between the primary and secondary levels. The image of natural landscape and entertainment appear, if we combine the results of both items, about half of the cases, but decreased slightly in the third year of Secondary Education. This data identifies the lack of knowledge about the social and environmental problems associated with these areas, showing an idealized representation of the environment as a space for interaction. This is a disconnect between the natural and social dimension which affects an ignorance of the complexity of the mechanisms inherent in the process of identifying natural park interaction with the physical environment, thereby obviating human action is caused.

The answers related to population scarcity appreciated in a natural park indicate that the presence of people in these areas is a very common question, what means that their anthropization is normalized.

They do not relate practically these areas with school outings, which shows a lack of didactic treatment by learning environment.

In a second interpretation shows that just over half of the students associates the function of protection and conservation, maintaining a certain continuity in all courses. They declare their intention to care for, protect and conserve natural park; however the intent of these actions is not clearly defined. If we cross this information with the ignorance of the nature park as if it were a protected space above interpretation, we are faced with an idealized conceptualization of what it means to protect this enclave.

Barely learning and observation is contemplated. This is worsened slightly in the third year of secondary education, interpreting that prevail aspects of entertainment versus those who promote learning in between.

In a third interpretation we emphasize that just over half of the students knows examples of natural parks; There is some continuity between the primary and secondary levels. In the items relating to the number of examples, the lack of knowledge prevails in relation to the diversity of these protected areas. Also, repeated exemplification responses associated with people, places, etc may show their relationship to social and family field trips, or, where the idea of natural landscape and entertainment prevails.

Both courses in the first primary and secondary courses there is some confusion between natural park and botanical gardens or parks or different natural landscapes. This decreases considerably in the third courses of secondary education. Also in all levels of education there is a minority that has combined examples of natural parks with otherwise, reinforcing this misconception.

We think From all this follows that the idealized vision of the natural park is consolidated as a figure of environmental protection when thinking about its conservation but not the end of it from a biocentric paradigm.

To improve these results, we propose to increase school outings to natural parks that promote learning in the medium from research in solving a social and environmental problem of interest that may facilitate connection of all knowledge, both personal and academic. We will do well potential generating new social representations that address the transformative nature of that concept through the development of sustainable attitudes and behaviors.

CONCLUSIONS, CONTRIBUTIONS SCIENTIFIC AND FUTURE PERSPECTIVES

From the results obtained the following findings:

- There is an association of ideas between natural park and protected area, but as static territories existing and should be cataloged from social representations environmental naturalists and anthropocentric type.

- Initially, the change from primary to secondary level is a drag Representations and misconceptions. As we move into secondary school courses, we note that minimally reduce such errors, but not remedied.
- The treatment of the concept of “natural park” refers to “focus theme parks nature from an anthropocentric vision.” Social representations developed seem to emphasize the concept of “park” compared to “natural”. This would indicate the need for a reconceptualization of the concept of natural park as a place of protection.
- Knowledge of social representations of a community has identified a problem in the conceptualization of the term, and has also shown the waste of learning and teaching environment for innovation and research in the reformulation of new social conceptions resource.
- Proposals for working the identification of social and environmental problems are based on the learning environment from the centers of interest arising from the students.

Therefore we suggest a series of educational proposals to try to overcome the deficiencies evidenced here:

1. Starting from the spontaneous conceptions of students to cause a diagnosis in common on Which is our concept of natural park, reflecting on the paradigms that guide the construction of the critical concept and foment social representation of the environment of globalizing way.
2. Review the concept of “natural park” transmitted from formal education (schools, high schools ...), non-formal (interpretation centers of natural parks, companies offering environmental education activities ...) and informal education (social and family contexts, media ...).
3. The school can and should be a real engine of change in the deconstruction and reconstruction of a new reconceptualization of the term natural park to encourage participation in the construction of social and globalizing representations of Environment to interact with a certain sustainability criteria.
4. Propose these school outings to natural areas from the method of fieldwork to allow research on the environment.
5. Evaluate the emotions that gives us the learning acquired for its potential impact in changing our attitudes towards the environment.
6. Share our concerns with the education community, with local and natural areas managers to approach the biocentric paradigm.

Scientific importance of this research is to verify the hypothesis, asserting that social representations in primary and secondary education about natural parks do not agree mostly with the concept of protection figure of a natural area; thereby hampering the development of a transformative vision to sustainable management or at least to transition towards sustainability.

The results allow further develop this research to provide other elements that configure a methodological triangulation analysis by contrasting the results obtained with the analysis of textbooks, pictures, teaching methodologies and questionnaires applied to teachers. A research applicable to other terms such as conceptualization of social and environmental education will also open; in these terms spontaneous conceptions and social representations are key to the knowledge of the environment and desirable interaction with it.

