



La dimensión ambiental para el desarrollo de la educación ciudadana en estudiantes de cuarto grado *The environmental dimension for the development of citizenship education in 4th grade students*

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Resumen

El cambio climático y el comportamiento del imperialismo hacen necesario el desarrollo de la dimensión ambiental, por ello, en Cuba se realizan diferentes transformaciones desde el Tercer Perfeccionamiento de la Educación para contribuir a la dimensión ambiental para el desarrollo de la educación ciudadana en los estudiantes de cuarto grado. Por lo que se propone como objetivo valorar el comportamiento de la dimensión ambiental desde los textos martianos, en la asignatura El Mundo en que Vivimos para el desarrollo de la educación ciudadana en los estudiantes de cuarto grado. Se utilizaron diferentes métodos, partiendo del dialéctico materialista. El sistema de actividades contribuye a la participación ciudadana y al conocimiento de la obra martiana, expresa a su vez, redimensionar las vías de convivencia social, a partir de recomendaciones sobre el accionar del sistema de trabajo de la escuela primaria.

Palabras clave: Dimensión ambiental; Educación ciudadana; Textos martianos; Sistema de actividades; Participación ciudadana.

Summary

Climate change and the behavior of imperialism make the development of the environmental dimension necessary, therefore, in Cuba different transformations have been carried out since the Third Improvement of Education, hence the scientific problem is how to contribute to the environmental dimension to the development of citizenship education in fourth grade students? And the objective is to elaborate a system of activities for the development of the environmental dimension from the Martí texts of the subject The World in which We Live for the strengthening of citizenship education in fourth grade students. The research uses different methods, starting from the general dialectical materialist method. The system of activities contributes to citizen participation and knowledge of Martí's work, expresses, in turn, redimensioning the ways of social coexistence, based on recommendations on the actions of the work system of the primary school.

Keywords: Environmental dimension; Citizen education; Martí texts; System of activities; Citizen participation.

Introduction

Among the world's global problems are climate change and environmental pollution, both of which have forced governments to seek alternatives for the care and conservation of the environment, hence the important summit meetings held in Rio de Janeiro in 1992, for the understanding of the need to pay the ecological debt and not the foreign debt as Castro (1992) asserted.

This issue, together with the Scientific and Technical Revolution, made possible the emergence of new sciences such as bioethics, cybernetics, among others, and the projection in the search for answers for the improvement of life on the planet to coexist better, in harmony with nature. It is for this reason that a call has been made for the development of citizenship education as an alternative to the conflict between man and the environment that surrounds him.

The Third Improvement of Education in Cuba, presents the new discipline: Education for Citizen Life (EPVC), with contents referring to the environmental dimension and citizenship education from primary education where the objective of environmental education is specified in the understanding, by students, of the relations of human beings with the environment, promoting active participation and solidarity in the search for solutions to problems.

Hence the need to educate students from the perspective of the environmental dimension, which enables them to join the family and the community in an environmental culture.

There is a variety of research related to the environmental dimension from the educational process in different teachings, among which are (Chacón et al., 2019; Capote et al., 2016; Quintero, 2018 and Santos et al., 2020), which refer to training and environmental dimension from different edges; Charbonet (2009) explains the need for the valuation of studies conducted on environmental education in the world and in Cuba. Licea (2012), argues the influence of the environment in the solution of social-historical processes, from an analysis of the background of Environmental Education in the preparation of Marxism-Leninism and History teachers.

On the other hand, Sierra (2021), emphasizes the development of legal culture and the need for the study of citizenship education with its dimensions by citizens; Loredó and Lamas (2022), propose

the need for the contribution of Universal History to citizenship education in the Marxism-Leninism and History course.

Notwithstanding these investigations, they are still insufficient for the treatment of the environmental dimension that contributes to the development of citizenship education in the students of the second cycle of the Gervasio Hernández Silva Elementary School in Pinar del Río, determined by:

- Insufficient participation of students in the work aimed at the care and conservation of the local environment in the school and the community.
- The activities elaborated by the teachers for the application of the contents of the subject The World We Live In related to the environmental dimension and citizen participation, are still not at the desired levels.
- Insufficient application, treatment and control of environmental laws by teachers and students.
- The possibilities offered by Martí's texts to develop the environmental dimension in students are not always taken advantage of.

Therefore, there is a fundamental contradiction between the demand of the need for the treatment of the environmental dimension, which contributes to the development of citizenship education in fourth grade students, and the deficiencies that exist in the treatment of the environmental dimension that contributes to the development of citizenship education in fourth grade students.

Hence, the scientific problem is formulated as to how to contribute to the treatment of the environmental dimension for the development of citizenship education in fourth grade students at the Gervasio Hernández Elementary School in Pinar del Río.

Therefore, the role of primary education is of significant importance in the acquisition of contents, feelings, attitudes and values that make it possible to renew human-society-nature relations and improve citizens' responsibility towards the environment. Hence, the objective is to value the environmental dimension from Martí's texts in the subject The World We Live In for the development of citizenship education in fourth grade students.

Development

Environmental dimension for the development of citizenship education in fourth grade students

The study of the environmental dimension in primary education has the fundamental purpose of integrating and systematizing the elements of nature and society for the formation of a scientific conception of the world, norms of social coexistence, feelings of love and respect for the environment in students.

It is of importance the attention given from the Third Improvement of Education to the discipline Education for Civic Life (EPVC), especially to the subject The World We Live In in fourth grade, which enables the "man-nature-society relationship in the development of skills (...) related to environmental aspects that can influence the development of the personality of the students" (Angueira, et al., 2022, p. 1).

It explains the fundamental aspects of the environmental dimension and the means that play an important role in the preparation of the human being as a social being for life that knows, creates and transforms this society based on the relationships he/she establishes among his/her peers.

The environmental dimension is:

Given by the civic activity that the citizen develops in his environment, propitiating the dialectic relationship man-nature-society, characterized by the good living that means living in harmony with nature through the promotion and execution of actions of care and conservation of the environment, saving of exhaustible resources, energy, water and respect for all forms of life existing on the planet, including knowledge and compliance with the animal welfare policy expressed in our legal system ... to develop environmental awareness (Sierra, 2021, p. 38).

The environmental dimension requires the development of citizenship education with an appropriate understanding of duties, rights, coexistence and respect for life by citizens; knowledge of the natural heritage and the strengthening of identity principles, allowing the subjects to interpret and value their history.

"Humanity has to face the real possibility of its self-destruction; nature has begun to take revenge against the unconscious and unconscionable acts of mankind" (Paumier and Durán, 2011, p. 7).

One of the ways to solve this problem is the treatment of the environmental dimension, from Martí's texts, in the subject *The World We Live In* in fourth grade for its relevance to the contribution to the development of citizenship education. Therefore, in the process of citizenship education, educational work has been given a central priority to respond to the interests and needs of Cubans, who know how to face problems and provide solutions to them.

Considering the elements that illustrate the close relationships between nature, society and citizens, the effectiveness of the subject *The World We Live In* involves placing students in a more complex problematic situation and confronting them with different conflicts, in such a way as to facilitate their participatory, communicative and responsible relationship with the natural environment through the study of Martí's texts.

"Martí's texts are an exceptional axiological proposal that contains the method of unity between the instructive and the educational" (Mendoza, 2003, p. 81), they favor the joint elaboration of the code of ethics and civic values of the teacher with the students through a system of activities.

The system of activities uses texts from the Golden Age, *Los Versos Sencillos*, *The Letters to María Mantilla*, among others, which have values such as simplicity, honesty, solidarity, humanism and love for everything that surrounds us. In all of them there is a reflection on nature.

José Martí's thought provides valuable methods for the development of citizenship education in students, the family and the community, as well as for the teachers' own work in political and methodological preparation meetings.

Sample and methodology

For the selection of the sample, the characteristics of the population were taken into account, which are given in the type of school, the timetable, the study program of the subject *The World We Live In*, the environmental conditions, the individual particularities of the students that constitute regularities, and the interest in the study of Martí's texts, among other aspects.

The population is constituted by 43 students of the second cycle, taking into account the homogeneity that exists among them, given in the equality of interests towards this study and the capacity of the students. The sample is composed of 24 students of the fourth grade, which represents 55.8% of the population.

For the achievement of the proposed objective, the methods used were selected, elaborated and applied, based on general scientific methods on the basis of the dialectical-materialistic method.

Theoretical methods

Historical-logical: It allowed the study of the historical evolution of the concepts of citizenship education, environmental education, environmental dimension, and others associated to the object of the research.

Analysis and synthesis: for the analysis of the different criteria on the environmental dimension, citizenship education and Martí's texts and other concepts related to the object of the research.

Induction and deduction: it was used to define the environmental dimension for the development of citizenship education and to determine the stages that allow its characterization, as well as the structuring of the system of activities proposed with the use of Martí's texts, its foundations, components and relationships.

Modeling: it made it possible to explain the structure of the system of activities that contributes to the treatment of the environmental dimension, from Martí's texts, of the subject The World We Live In for the development of citizenship education in fourth grade students.

Structural systemic: it is used in the determination of the system of relations that are erected in the research, which contributes to the treatment of the environmental dimension from the Martí's texts in the subject The world we live in for the development of citizenship education in fourth grade students.

Systematization: for the interpretation and enrichment of the contents on the environmental dimension for the development of citizenship education.

The documentary analysis allowed, from the study of the normative documents of the model of the Third Improvement of Primary School Education, the assessment of the guiding basis of the processes, their objectives, contents, their relationships and thus to approach the existing theoretical-methodological conceptions that contribute to the treatment of the environmental dimension, from the Martí's texts in the subject The world we live in for the development of citizenship education in fourth grade students.

Empirical methods

The pedagogical test, to verify the mastery of the contents that fourth grade students have on the environmental dimension, from the Marti's texts, of the subject The world we live in for the development of citizenship education in fourth grade students.

The survey, to know the state of opinion of teachers and fourth grade students about the environmental dimension, from the Marti's texts, in the subject The world we live in for the development of citizenship education in fourth grade students.

The interview, to know the teachers' evaluation of the contents referred to the environmental dimension, from the Marti's texts, in the subject The world we live in for the development of citizenship education in fourth grade students.

Observation, to evaluate the treatment of the environmental dimension in the classes of the subject The World We Live In for the development of citizenship education in fourth grade students, as well as to verify the results of the initial introduction of the proposed system of activities.

The criterion of specialists allowed evaluating the quality and feasibility of the system of activities and its components prior to its application, made it possible to obtain specialized criteria about the proposal and the theoretical positions of the model of primary education.

The methodological triangulation allowed the partial empirical assessment of the system of activities by establishing, through a cross-check, the analysis of the data collected from different research methods and techniques.

Statistical and mathematical methods

Statistics made it possible to process and evaluate the data obtained from the empirical methods, for which tables, graphs and percentage analysis were used.

Operationalization of the dependent variable: The environmental dimension from Marti's texts, in the subject The World We Live In for the development of citizenship education in fourth grade students. Parameterization.

In order to assess the results of the applied techniques, the dimensions and each of their indicators are analyzed, as shown in Table 1.

Table 1. Evaluation of the variable, dimensions and indicators

Variable	Dimensions	Indicators	Evaluation		
			B	R	M
The environmental dimension from Martí's texts in the subject The World We Live In for the development of citizenship education in students.	Cognitive	Living beings Non-living objects Relationship between the components of nature			
	Affective volitional	Love and respect for nature and the symbols of the homeland. Citizen participation in the protection of the environment Social coexistence in the locality			
	Creative	Transformation of nature by man Representation of protected areas on a map The environment and its benefits for citizens			

Source: Self-made, 2022

Results of the environmental dimension, from Martí's texts in the subject The World We Live In for the development of citizenship education in fourth grade students.

Documentary analysis

In order to verify the treatment of the environmental dimension from Martí's texts in the subject The World We Live In for the development of citizenship education in students, the different programs of the discipline, reports of methodological meetings and classes of the second cycle of the Gervasio Hernández Elementary School were used.

For the analysis of these documents, a guide was elaborated containing the main indicators of the variable environmental dimension from the Martí's texts in the subject The World We Live In for the development of citizenship education in fourth grade students.

In the study of these documents, the following regularities were determined:

- There are insufficient problems and practical activities from Martí's texts related to the components of nature, which allow the development of citizenship education in students.

- In the program of the subject, the treatment of the importance of the Law of National Symbols is not at the desired levels; they are analyzed from topics of Cuban History.
- The concepts of environmental dimension, surroundings, environment, citizens, among others, are not explicit in the program of the subject The World We Live In, which makes it difficult to elaborate activities and methodologies to work with the environmental dimension that contribute to the development of citizenship education in fourth grade students.
- The treatment of Marti's texts in the program of the subject The World We Live In for the development of citizenship education in fourth grade students is insufficient.
- The program needs to be updated regarding the Law of National Symbols.

Analysis of the results obtained in the discussion of the initial diagnosis of the environmental dimension variable

In the cognitive, affective-volitional and creative dimensions, the percentages obtained for "good", "fair" and "poor" are multiplied by 3, 2 and 1, respectively. The weighting index for each indicator is obtained by adding the above results and dividing by 3.

To process these results, the pattern established by Torres et al. (2000) was taken as a pattern, from the frequency of response of each of the evaluated factors, the index of each indicator was specified in percentage units (PIU), and from these, the index of each dimension was determined, from which the index of the variable was determined as shown in Table 2.

Table 2. Results of the initial diagnosis of the variable

Dimensions	UIP
Cognitive	61,8 %
Affective volitional	47,5 %
Creative	41,1 %
Variable	50,1 %

Source: Self- made,

2022

The data observed in the previous table showed that the results obtained in the variable are low, since only 50.1 PIU are achieved, being the most affected dimension the creative one, with 41.1 PIU and within it, indicators 2 and 3, for which all the previous ones serve as a base.

The following regularities can be observed:

- There is still insufficient treatment to the environmental dimension from Martí's texts, related to the environment, citizen participation and social coexistence.
- The methodological activities related to the treatment of the environmental dimension for the development of citizenship education lack creativity and flexibility.
- There are difficulties in making judgments, criteria and/or personal evaluations of the message given in the Martí's text.
- The students' representation of protected areas on a map is insufficient.

Hence, the treatment of the environmental dimension, from Martí's texts in the subject The World We Live In for the development of citizenship education in fourth grade students, is not at the desired levels. Students find it difficult to interpret the message contained in Martí's texts. Therefore, it is evident the need for a system of activities that favors the achievement of the objective proposed in the research.

The topicality of the subject is framed in the actions of the Cuban Government and the Third Improvement of Education, focused on the treatment of the environmental dimension from Martí's texts in the subject The World We Live In for the development of citizenship education in students.

The practical contribution is materialized in the system of activities for the treatment of the environmental dimension, from Martí's texts, in the subject The World We Live In for the development of citizenship education in 4th grade students. It is structured in different stages and constitutes a working tool for teachers.

Conclusions

The environmental dimension, from Martí's texts in the subject The World We Live In for the development of citizenship education in fourth grade students, presents significant possibilities to awaken feelings of love for nature, companionship, responsibility and citizen participation before the environment of their homeland. The systematization of the theoretical references demonstrated

the need for its implementation in elementary schools. The initial state of the environmental dimension from Martí's texts in the subject The World We Live In for the development of citizenship education in fourth grade students showed that there are insufficiencies in the fourth grade normative documents related to the research topic.

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