

El análisis de los elementos paratextuales: una vía para la educación ambiental

The analysis of paratextual elements: an avenue for environmental education

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RESUMEN: La política educacional en los momentos actuales, reconoce la vinculación de la educación ambiental con los elementos paratextuales desde el tratamiento de la comprensión en relación con el medio ambiente. Tema de actualidad a partir del modelo de formación de los estudiantes de la Carrera Licenciatura en Educación Primaria, proyectando estrategias curriculares. El objetivo es diseñar acciones encaminadas a su tratamiento a través de los elementos paratextuales. Se emplearon como métodos: observación, encuestas, pruebas pedagógicas y matemáticos estadísticos. Los resultados obtenidos evidencian acciones cognoscitivas que integran saberes al enseñar esta temática en el subsistema educacional para el cual se forman.

Palabras clave: Educación ambiental; Elementos paratextuales; Actividad; Estudiante

ABSTRACT: The current educational policy recognizes the link between environmental education and paratextual elements from the treatment of the comprehension in relation to the environment. This is a current topic from the training model of the students of the Bachelor's Degree in Primary Education, projecting curricular strategies. The objective is to design actions aimed at its treatment through paratextual elements. The following methods were used: observation, surveys, pedagogical and statistical mathematical tests. The results obtained show cognitive actions that integrate knowledge when teaching this subject in the educational subsystem for which they are trained.

Keywords: Environmental education; Paratextual elements; Activity; Student

Introduction

Man in the 21st century faces diverse demands and realities in relation to life in society and the difficulties that surround him daily, which demands a scientific and consistent style of the incomparable natural phenomena that overwhelm the world, among them the care and protection of the environment, an aspect that involves human beings.

International organizations such as the United Nations Environment Program (PNUMA), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the agendas of the scientific community have expressed many concerns about the deterioration of the environment due to the worsening detriment caused by industrial development. In the contexts and levels of society, the need to reinforce educational processes based on the appropriation of knowledge, values, skills and attitudes becomes more important.

Associated with the above, environmental education extends its objectives to the context and adds the relationships of individuals with each other, and of these with nature. It is its intention to maintain a harmonious and dynamic balance between all the components that make up nature, society and the economy.

(...) people with autonomous thinking, authentic, critical, creative and supportive, democratic and participatory, with a sense of social belonging and cultural identity, capable of dialogue, of recognizing each other and of self-managing changes and innovations necessary for the improvement of the quality of life should be formed (Novo, 1996, p. 10). (Novo, 1996, p. 10).

The need for students to acquire the necessary tools to deal with the problems of the educational environment is a reality, and the formative potentialities offered by the different subjects of the curriculum and the diversity of educational environments are sought. It is interesting the approach that the ideas that have been continuously generated in the last few years, with respect to the subject in question and to orient the educational and pedagogical aspects around it, are spreading.

It has been found that the students of the University of Guantánamo, present deficiencies in terms of knowledge of this topic and as main causes were determined:

- Scarce participation in extracurricular activities related to environmental protection (exhibitions, contests, open doors, scientific events, workshops, etc.).
- Limited knowledge of global, regional, local and national problems and their effects based on paratextual elements.
- Insufficient knowledge of the areas of harmful impact in the locality, as well as actions to cancel these problems.

This led to the development of the research at the University of Guantánamo at Guantánamo municipality, and Guantánamo province. The population consisted of 54 students in the first year of the Bachelor's Degree in Primary Education. The sample is formed by 26 students of group 3, of which 24 are females and 2 are males, whose ages range between 19 and 20 years old. Their classification was voluntary because of their dynamism and enthusiasm. In addition, sometimes they do not show correct behaviors towards nature and do not always put into practice the knowledge they have for its care and conservation.

Development

The development of environmental education, as one of the important processes contributing to the solution of the current environmental crisis, constitutes a dimension of the integral education of all citizens. That is why it will depend, to a great extent, on the organization, coherence and institutional capacity of the educational systems in which it is developed, which universities are not exempt.

In this sense, the demands declared in the Model of the Professional of the Bachelor's Degree in Elementary Education and the transformations emanating from the improvement in the educational level for which students are trained pose new challenges to the current curriculum in which the interest for the incorporation of environmental contents in all subject programs is evident.

At the International Conference on Environment and Development (Brazil), in June 1992, representatives of 178 nations met once again with the common objective of seeking alternative solutions in the years leading up to the 21st century. Agenda 21, the program of the Rio de Janeiro conclave, focused on the promotion and implementation of environmental education to motivate sustainable progress.

Cuba was one of the first to express its support for this call, which it assimilated and left embodied in the political, social and economic foundations of the State since 1992, reforms regarding the Constitution of the Republic, in its Article 27, the protection of the environment and natural resources of the country. Showing its close link with reasonable economic and social progress to make human life fairer and maintain the survival, prosperity and confidence of present and future generations. It is up to the aforementioned document to guide the competent bodies to apply such

policy, arguing that it is the duty of the citizens to contribute to the permissible care of the environment.

Environmental education has an everlasting process of progress and development. Its basic conceptions and approaches have been consolidating since the mid 70's of the 20th century and have provided it with a solid conceptual and methodological basis. They maintain that environmental training in its progress has obtained changes in the way of conceiving it and putting it into practice. Jiménez and García (2017).

According to the Economic Commission for Latin America and the Caribbean (2019) environmental education continues to be linked to the education system and with the adoption of Agenda 2030 in September 2015) to ensure that all students achieve the mandatory theoretical and practical notions and arouse reasonable momentum. According to the purposes of the present analysis, we assume the exposed definition where it is stated that environmental education is:

... A continuous and permanent process, which constitutes a dimension of the integral education of all citizens, oriented so that, in the process of acquisition of knowledge, development of habits, abilities, attitudes and formation of values, the relations between men and between these with the rest of society and nature are harmonized, to thereby propitiate the reorientation of economic, social and cultural processes towards sustainable development. (Ministry of Science Technology and Environment (CITMA), 1997, p. 11).

Taking into account the analysis of paratextual elements and their link with environmental education, undoubtedly contributes to one of the conceptions of an educational project with profoundly human purposes. Seen in this way, they occupy today important spaces in the universal pedagogical task since they are present in the daily life of the individual; for this reason it is convenient their treatment from all disciplines, even when they are prioritized by those that privilege their study.

These considerations lead the authors to express that the relationships established between the environment and the paratext are a propitious way for the development of environmental education, besides allowing the student in training to reach didactic-methodological modes of action, as they

place them in the teaching-learning process in a bifunctional role: the one who learns and the one who learns in order to teach.

Therefore, the teacher cannot lose sight of the fact that the paratextual elements place and favor the student in the different actions to be developed during the conscious processes of analysis; this is why those who face the content do not start from zero, but from a first representation of the meaning, an assumption, which will be immediately reformulated during the reading.

When the reader does not understand what the text says, does not reflect, nor evaluate the content of the reading, that is to say that he/she does not know the strategies that must be deployed to discover the meaning of a message, for example, that of a book, it is very common that they do not register the paratext or that they do not know how to decode it. The marginal or peripheral nature of many paratextual elements can connote for these readers a waste of time, a dwell on circumstantial, reflexive or striking issues. It is for this reason that they do not "waste time" in reading prologues, back covers or indexes. It is in this direction that the subject of this paper: paratextual elements: a way for environmental education, acquires an exclusive connotation due to the multiple possibilities it offers to students.

Undoubtedly, paratextual elements constitute an important resource for environmental education in students, since their adequate use allows the realization of activities that lead to the analysis, comprehension and evaluation of texts that deal with this subject, and, likewise, they can be an effective space for the strengthening of this purpose.

From this position, it is necessary for the teacher to motivate students and contribute to an adequate environmental education, to show the necessary knowledge about nature from correct patterns of action that serve as an example both inside and outside the institution.

Given the space that paratexts have reached in the communicative network, it is significant to recognize that without them it is almost impossible to come into contact with a text, without having had previous news of its content. The analysis of paratexts can be a special way to increase the awareness and knowledge of individuals about environmental issues or problems. It is still a field that involves an interdisciplinary approach, i.e. it has emerged from different disciplines, essentially humanistic and social science oriented. Hence, the instruction of these establishes one of the notable

objectives of the classes in the students, conceived with an integral and interdisciplinary approach to the teaching-learning of textual comprehension and construction.

For these reasons, it is important for students of the Bachelor's Degree in Primary Education to have a broad mastery of the theory and practice of paratext analysis in order to be able to educate environmentally.

An adequate analysis allows students to acquire concepts, skills, norms and values. But this is possible only if the teacher mediates the activity by means of enunciations oriented towards an objective of the analysis; makes a selection of the text that best reveals the functionality of the linguistic structures and in turn offers ways of how to proceed, all this will favor the learning of the method of analysis.

This makes it necessary to introduce analytical routes of greater transcendence on the analysis of paratexts, seen as a complex process, not reducible to the means it employs and its products. It is an analysis that encompasses the linguistic, cognitive, social and cultural spheres inherent to every text.

From this perspective of analysis, the conception of an integrated teaching-learning process of paratext analysis is connoted, conceived with a systemic character, where the essential is that the student discovers the need for its use to meet their communication needs, from the exchange of appropriate meanings and senses in various contexts so that they can apply what they have learned to new communicative situations (Vargas, 2010), all of which is of unquestionable importance for their cultural training.

Hence the importance of paratextual analysis in the search for unity in the dissimilar. This means that when analyzing a text, criteria from General Didactics and Cognitive Psychology are integrated, as well as theoretical assumptions from various disciplines of Didactics particular to the Spanish language, including Linguistics and Pragmatics; The student is allowed to enter into the socio-cultural conditioning factors of his time and to internalize the historical, formative, artistic, political, ecological and scientific-technical aspects, as spheres of the integral general culture that we aspire to foster in current and future generations.

Hence the need to teach how to analyze from the essential, taking into account that knowledge is one, but that it is fractioned from different angles of reality; motivated for that reason it is recommended that paratextual analysis promotes the search for the unity of knowledge; for which

criteria from the theory of cognitive psychology, general didactics and Spanish Language with its disciplines are superimposed: pragmatics, linguistics, theory and literary criticism; which will promote that the student in formation enters into the socio-cultural context of his time and can in turn understand, analyze and construct texts of different styles.

The achievement of such purposes requires that, both in organizing the learning activity for the analysis and in the tasks provided to the student, conditions are created that enhance the participation of the student learning to teach, not only in the phase of textual analysis itself, but also in the involvement of the student in the pre-analysis phases and making him/her an active participant in the post-analysis phase.

The above leads to the reflection that the procedures used for the application of the selected method for paratextual analysis should lead to the establishment of generalizations that guarantee an adequate learning of the analysis in interrelation with the rest of the co-participants in the process of environmental education.

Finally, it is specified that the aforementioned demands require a different conception regarding the role that the teacher must assume in the organization, planning, execution and control of the activities destined to paratextual analysis, precisely in this sense it is intended to achieve a methodological didactic renovation in the one who teaches to achieve the transition that can go from a simple reproduction of the content of the selected texts to an application of this to new learning situations.

This intention requires the application of methodological strategies on the part of the teacher, by employing in his classes procedures that demand from the student learning actions with a greater mental effort: observation, comparison, generalization, concept elaboration, assumptions; among others.

From the pedagogical-didactic-methodological point of view, the teaching-learning of text analysis is also based on the essential role given to education in the integral development of the personality, the teacher offers the student in training the possibility of creating learning activities, where he takes into account: their interests, motivations and social needs, mobilizing elements of the cognitive activity, so that they are able to analyze what they have read and to transmit values where an affective-volitional relationship predominates, which guarantees, from the activity, a coherent

communication, thus favoring education and the development of the personality of their students in their professional performance.

From the study of the bibliography consulted, it can be deduced that research on the analysis of paratextual elements is insufficient, since it has been characterized by the assumption of different positions regarding the object under investigation, and its purpose has not been to pay attention to paratexts as essential content and motivating agent in the student's learning.

The main function of paratextual elements is to capture the reader's attention so that, once the reading has begun, he/she continues reading the information in detail. But it fulfills other functions, such as the following:

- It gives the reader a valuable and quick idea of the news of the day.
- It makes what is important "interesting". This means highlighting the movement of the causal and the necessary.
- To differentiate some texts from others.
- To specify the distance between the absent writer and the reader.

Based on the above results, a proposal for teaching activities aimed at environmental education is made, through paratextual elements in students of the Bachelor's Degree in Primary Education. Image 1.

Teaching activity # 1

Image 1

Guaso River, located in Cuba, Guantánamo province, Guantánamo municipality.



Source: Photogallery *The Guaso River and its bridges*. Crespo, 2020

Title: Cleaning of my local river

Objective: To analyze the image related to the river of the locality where the University of Guantánamo is located, in order to guarantee the creation of an environmental conscience that will help present and future generations.

The activity is directed to the student's compassion, taking him out of the comfort zone in which the beautiful and friendly natural landscapes usually place him, trying that the discomfort installs the portrayed reality as something that should be transformed. The paratextual elements that guide the gaze strengthen the idea by including the apparent oxymoron river/ cleanliness, as well as adjectivations that accentuate the rejection (stinky).

We would like to take up an accusation of environmental problems. This is also manifested when errors or responsibilities are attributed to the facts revealed: "The consumption that characterizes our civilization generates large amounts of garbage". However, no social actor is identified as responsible for these problems, remaining in generic consideration: the action of Man (sic). In this way, the viewer of the image is transferred not only to the awareness, but also part of the blame.

These problems are a novel affiliation in the Universal Geography manual, as they are exhibited in an "environmental key", as a consequence of the innovation of the environment by the individual.

Thus, finally, the environmental theme is placed in the images of the books, by adding the dangers unleashed by the uncontrollable force of nature (droughts and floods), to those generated by the devastating force of the individual.

Linked to this revelation of nature, a conservationist regard emerges, with a nature (constantly external to the human being) to be safeguarded and treasured. "Here you see me. I am unique and irreplaceable. I manage to protect. Take care of me"

- 1- Look carefully at the image above and answer the following activities:
- 2- In the presence of what paratextual element are we in?
- 3- What impression has the image made on you (positive or negative?) Why?

"Educating to care for the environment is educating to appreciate life. Preserve what remains and remedy what has been damaged."

- 4- Is the image related to the previous sentence?
- 5- Analyze the phrase and as a young person of today, think about those of tomorrow who may suffer the consequences of environmental detriment. What would you express to them? Would you be ungrateful to nature?
 - a) Express it in a text that does not exceed five lines.
- 6- What other paratextual elements have you appreciated that have the possibility of sending the world a message to preserve the environment and therefore human existence?
- 7- What function do they perform within the book?

Teaching activity # 2

Title: Deforestation

Objective: To identify environmental problems through a title, so that students become aware of the need to care for and preserve the environment.

This title reflects a representation of the phenomenon and, although it may not seem so, of its causes. The tasks are, again, given to man or (disposal without adequate control). All issues that can be solved through a "rational use of resources" and the development of more advanced and efficient techniques.

The title addresses an environmental issue, but adding ecological degradation to human responsibility in the exhaustion of resources, both in their uncontrolled extraction, without taking into account natural regularities, and their depletion. The limits that the planet imposes on humanity and future dangers are highlighted.

The title "The world is at risk", belongs to the following text:

Friend:

For many years I have longed to write to you, but my overall health is getting worse every day; the day before yesterday my temperature rose to 42o C, and all my organisms suffered alterations. The doctors say that it was because of the abundance of oil I drank or the shower of caustic rains that fell on me while I was walking behind the man who has not finished paying the allowance for infecting my home with carbon dioxide.

I have sent you the photo you requested, in spite of the sorrow for the physical and psychological state in which I find myself. As I am, I do not look very graceful; but I warn you that you will be in the presence of a sad face, wrinkled by the years of desertification that have fallen on me, my green woody hair is no longer even the shadow of when we met twelve years ago, now you can clearly see my white hair because of deforestation. What can you say about my blue sea view! Do you remember the luminosity I had and how perfect I used to read those novels we used to watch? Well, at this moment I have to have glasses because of the increase of blindness due to the amount of dirt that disturbs me.

Anyway, my companion, if I overcome the ailments and am alive at the end of the year, I will write to you again. May we see each other soon, share and enjoy as in the old days.

Remembering you perpetually, La Tierra

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1. What kind of text are we in the presence of?

2. Are there any lexical unknowns? Look up their meaning and don't forget how they are written.
3. How did you know who writes the text?
4. What type of composition do you use?
5. What is the cause of the alterations that the Earth is suffering?
6. Identify the environmental problems that could be expressed in the text, taking into account the message conveyed by the title as a paratextual element. What are the consequences for life on the planet?
7. What measures have been taken in Cuba to attenuate the noticeable consequences in the letter?

Mark with an x the true statements. Select one of them and say if the title reports corroborating your answer.

- ☐ ___ The Earth is not irritated by its state of health.
- ☐ ___ It is very old.
- ☐ ___ The individual is responsible for his or her condition.
- ☐ ___ The one who writes is not in danger.

With what intention is the title used?

Does the title relate to the text? Imagine that you are the friend to whom the letter is addressed, what other title would you suggest?

Conclusions

The results obtained reaffirm the importance of environmental education through paratextual elements and the efficiency of its materialization from the design of teaching activities with an interdisciplinary and integrating character, where the student exchanges ideas, forms concepts and values that last in thought and gives them the possibility of broadening their cultural horizon, The environmental education programs developed in the communities and institutions, as well as the incorporation of environmental contents through curricular and extracurricular activities in the educational centers, in general, have increased substantially.

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