

# **PERCEPTION INDEX OF ENVIRONMENTAL EDUCATION IN FUNDAMENTAL EDUCATION SCHOOLS IN A CITY ON THE BRAZIL / BOLIVIA FRONTIER**

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## ABSTRACT

**Objective:** to analyze the Environmental Education Perception Index in the light of national curricular parameters (PCN's) within the scope of elementary education in state schools in the city of Guajar-Mirim, Rondnia, on the Brazil / Bolivia border. **Method:** for this study, factor analysis was used as a mechanism for building performance indices for each parameter studied. The Statistical Package for the Social Sciences - SPSS [30] tool was used to determine the proposed indexes that followed the scale advocated by Hair et al [21]. **Results:** the results presented by the teachers of the 4 schools correspond to the perception index considered "good" with an average index of 0.699. The average perception index of school technicians and managers was 0.591, considered a "regular" index. The students had an average performance of 0.537, considered a "regular" performance index. The general IPEA among all schools surveyed was considered "regular" with a performance index of 0.597. **Conclusion:** the fact that Guajar-Mirim has 92% of its territory occupied by Conservation Units and Indigenous Lands and a strong environmental policy does not correspond to the level of abstraction applied by formal Environmental Education. Environmental Education given in Guajar-Mirim elementary schools imposes considerable risks on the environmental conscience of future generations, as it presents certain deficiencies in fulfilling its institutional role as a social transformer, configuring itself as a limiter of sustainable development and awareness environmental.

**Keywords:** Perception Index. Environmental education. Factor analysis. Elementary School.

## 1 INTRODUCTION

Environmental problems are the responsibility of individual and collective [1]. According to Oliveira et al [2], contemporary society faces numerous problems of an environmental nature, considering a number of factors, some of a natural nature, and others not. However, most of the difficulties experienced in this aspect have as a main cause human action, directly or indirectly, either as a result of the attitude itself, or as a result of its omission. Exacerbated consumerism and the considerable increase in the use of disposable materials are evidence that, despite much talk, there is still little reflection and what has been done is insufficient to change this reality.

For Oliveira et al [2] education, in the sense of acquiring knowledge that enables the understanding of the cause and effect of the facts, as well as the reflection of practices adopted, can be configured as a mechanism for changing the attitude towards the care that one must have with the environment in which we live. In this regard, it is essential to educate people about the scarcity and limitations of natural resources, as well as to make them aware that it is the responsibility of each one to maintain a balanced environment for this and future generations [2].

The Federal Constitution of Brazil of 1988, in its article 225, determines that "everyone has the right to an ecologically balanced environment, a good for the common use of the people and essential to a healthy quality of life, imposing on the public power and the community the duty to defend and preserve it for the present and future generations"[3]. The Federal Constitution also determines that the public power must promote Environmental Education at all levels of education and public awareness for the preservation of the environment in order to spread the idea that everyone has the right to a healthy environment and that

this condition it must endure for future generations [3]. Under this prism, Environmental Education contributes to the fulfillment of this responsibility of the public power, as it is configured as a way of sensitizing people to the need for a balanced and healthy environment for all [2].

Pacheco [4] reminds us of Resolution No. 2/2012 of the Ministry of Education (MEC), which establishes national curriculum guidelines for Environmental Education. According to MEC Resolution No. 2/2012, the term “environmental” does not just exemplify just one type of education, but constitutes a structuring element of society, for which it is necessary to mobilize social actors committed to transforming political and pedagogical practices and educating environmentally ethical citizens.

Among other legal instruments, Law No. 9,795 / 1999 stands out, which institutes the National Environmental Education Policy. According to this Law, Environmental Education is an essential and permanent component of national education, and must be present, in an articulated manner, at all levels and modalities of the educational process, in a formal and non-formal character. According to Brazil [5], Decree No. 4,281 / 2002, which regulated Law No. 9,795 /, establishes that the National Environmental Education Policy will be carried out by the bodies and entities that are part of the National Environment System (SISNAMA), by public and private institutions of the education systems of the education networks, by public agencies of the Union, States, Federal District and Municipalities, involving non-governmental entities, class entities, means of communication and other segments of society. And that in the inclusion of Environmental Education at all levels and teaching modalities, the National Curriculum Parameters and Guidelines are recommended as a reference, observing the integration of Environmental Education to the disciplines in a transversal, continuous and permanent way and the adequacy existing programs for the continuing education of educators.

This work seeks to understand how the perception of Environmental Education is understood from the National Curriculum Parameters (PCN's), based on formal Brazilian education. The PCN's are a set of documents that since 1997 has been implemented throughout the national territory as a reference for the renewal and re-elaboration of the curricular proposal [6]. It addresses the contents of the different areas of knowledge, that is, from elementary school to high school where one must study Portuguese language, mathematics, the physical and natural world, the social and political reality, emphasizing the Brazilian situation [6].

According to Brazil [7], the Ministry of Education's Proposed National Curriculum Guidelines for Environmental Education postulates that in its pedagogical praxis, Environmental Education involves the understanding of a responsible, critical, participatory citizen education, where each subject learns from scientific knowledge and the recognition of traditional knowledge, making it possible to make transformative decisions based on the natural or built environment in which people are inserted. Environmental Education advances in the construction of responsible citizenship, stimulating fairer interactions between human beings and other beings that inhabit the planet, in order to build a sustainable, healthy and socially just present and future.

According to BRASIL / MEC / SECAD [8], the PCN's are a subsidy to support the school in the elaboration of its educational project, inserting procedures, attitudes and values in the school life, as well as the need to contemplate some social aspects, urgent issues of scope national, called transversal themes: environment, ethics, cultural plurality, sexual orientation, work and consumption, with schools and / or

communities and other themes relevant to their reality. For Tomazello [9] in the PCN's, education is seen as an indispensable element for the transformation of environmental awareness, where new behaviors and new attitudes must be adopted.

At school, environmental content must be integrated into the curriculum through transversality, as they are treated in different areas of knowledge, in order to permeate the entire educational practice and, at the same time, create a global and comprehensive view of the environmental issue. The inclusion of Environmental Education in the school curriculum, proposed by the PCN's through the theme of the environment, implies a process of educational innovation [10]. For Moraes [11] Environmental Education is a coherent and methodologically acceptable alternative for institutional action to seek the balance of the environment. There is a consensus in the educational community that environmental education is essential to achieve the ideal of a sustainable society.

Environmental Education has an important role in promoting the perception of the necessary integration of human beings with the environment [12]. A harmonious relationship, aware of the dynamic balance in nature, enabling, through new knowledge, values and attitudes, the insertion of the student and the educator as citizens in the process of transforming the current environmental framework of our planet [13]. According to Wenceslau and Nogueira [12] Environmental Education, guides in the construction of new paths, new relationships between society and the nature in which they live, assisting in the process of training more critical human beings and concerned with preservation issues. The school environment is not only the school physical space. The educational environment is constituted in the relationships established in the school routine, between the school and the community, between the community and society, between its actors, in the ideological clashes due to hegemony, therefore it is a complex movement of relations [14].

According to Loureiro [15] Environmental Education, understood as "educational and social praxis" and can be worked out both formally and informally. In the formal aspect, we have the school, a place par excellence for experiencing this practice, because, in addition to being an environment conducive to teaching and learning, it already has a public that can act as a multiplier of ecologically correct ideas and actions. Environmental Education as an educational and social praxis aims to build values, concepts, skills and attitudes that enable the understanding of the reality of life and the lucid and responsible performance of individual and collective social actors in the environment [16].

Laurel; Layaques and Castro [16] advise that the social relations that are established at school, in the family, at work or in the community allow the individual to have a critical perception of themselves and society, thus being able to understand their position and social interaction, building the basis of respectability towards others. Wenceslau and Nogueira [12] teach that this interaction between individuals plays an important role in the construction of the human being, and from this social interaction, the individual will internalize the elements of his culture, building his inner or intrapsychological universe from the middle external.

This research defines the approach to the perception of Environmental Education based on a proposal of an analytical model. Being that the parameters used in the research corresponded to the evaluation of the perception of the environmental attitudes of the teachers of the researched schools; the practices and experiences developed by teachers in the classroom with regard to environmental education; and the perception of elementary school students of how they see such environmental education practices

being carried out in their respective schools, capable of generating the perception index of environmental education. Some school information was used, such as: school creation law; school management competence; number of students enrolled; number of students enrolled in elementary school; number of teachers; number of teachers linked to elementary education.

According to Brandalise et al [17] perception is a person's interpretation of a message and it can be different depending on who receives it, which leads one to believe that the level of education and experience influences the way a stimulus is perceived and, consequently, in the individual's attitudes and behavior. Each individual perceives, reacts and responds differently to the environment in which he lives and that the responses or manifestations that result from it are the result of perceptions (individual and collective), cognitive processes, judgments and expectations of each person.

It is even hypothetically believed that these statements are confirmed in the context of the Amazonian reality, such as the municipality of Guajará-Mirim, which has approximately 92% of its protected territory, which are distributed by Nature Conservation Units (UC's) and Indigenous Lands (TI's) that deserve to highlight the following questions: how is the practice of environmental education perceived in state elementary schools? What is your relationship with the formation of the sustainable development paradigm, from the perspective observed by students, teachers and technical-administrative staff in public elementary schools?

The study consisted of 4 state public schools in the city of Guajará-Mirim, with a universe of 2,205 students, 1,799 students enrolled in elementary school, 83 teachers, 77 teachers linked to elementary school. What was established as the objective of this research was to analyze the Environmental Education Perception Index in the light of national curricular parameters (PCN's) within the scope of elementary education in state schools in the city of Guajará-Mirim, Rondônia, on the Brazil / Bolivia border.

## **2 METHOD**

### **2.1 Type of research**

The research method adopted was the hypothetical-deductive one originally formulated by Karl Popper. Such a method starts from a conjecture that is tried at all costs to be refuted. If such a conjecture remains valid, then the hypothesis is accepted as true.

### **2.2 Research location and sample**

The field research was carried out in 4 elementary schools in a Brazilian city, on the border with the Republic of Bolivia. Data collection was carried out with 1,799 students from a universe of 2,205 students enrolled in the 4th and 5th year of study and with 77 teachers from a universe of 83 elementary school teachers, in addition to 25 participants including technicians and educational managers.

### **2.3 Indicators for index construction**

The Environmental Education Perception index was built from the indicators: types of pollution; greenhouse effect; loss of biodiversity; desertification; climate changes; soil degradation; water pollution; depletion of the ozone layer; destruction of forests; too much population growth; water shortage; poverty; burned; socio-environmental inequality; quality of life; conscious consumption; collection and disposal of solid waste; reuse of recyclable materials; waterborne diseases; sanitation; cares with the body;

conservation units; indigenous lands; forest reserves; practices of preservationist and conservationist actions, ethics; cultural plurality; job; environmental preservation; sustainable development; ecological awareness, environmental education, public policies, environmental legislation.

#### 2.4 Data collection instrument and ethical aspects

The interview form was previously prepared and discussed with the management of each school involved. Data collection took place after the signing of the Free and Informed Consent Form by parents or guardians of the students and after authorization from the direction of each school. There was no situation of embarrassment or exposure of the research subjects. Therefore, it complied with the provision provided for in resolution 196/96 of the National Health Council of Brazil.

#### 2.5 Index construction method

For this study, factor analysis was used as a mechanism for building performance indices for each parameter studied. Factor analysis is a generic name given to a class of multivariate statistical methods whose main purpose is to define the underlying structure in a data matrix. In general terms, factor analysis addresses the problem of analyzing the structure of the interrelations (correlations) between a large number of variables, defining a set of common latent dimensions, called factors. With factor analysis, the researcher can first identify the separate dimensions of the structure and then determine the degree to which each variable is explained by each dimension. Once these dimensions and the explanation of each variable are determined, the two main uses of factor analysis - summary and data reduction - can be achieved, according to Paraguassu-Chaves et al [18] in your study “Environmental Education Perception Index (IPEA) headed for sustainable development: A study in Elementary Schools in the city of Guajará-Mirim, Rondônia (Brazil)” and corroborated by Carvalho et al [19] and Carvalho et al [20]. According to Hair et al [21] when summarizing the data, factor analysis obtains latent dimensions that, when interpreted and understood, describe the data in a much smaller number of concepts than the original individual variables. Data reduction can be achieved by calculating scores for each latent dimension and replacing the original variables with the same ones. Consecrated authors such as Santana [22]; [23]; [24]; [25] and Cavalcante [26] confirm the efficiency of the factor analysis for the construction of perception indexes.

As a method of construction of the Environmental Education Perception Index, the logic of factor analysis was adopted, which can be presented in the matrix form as in Dillon; Goldstein [27]:

$$X = \alpha F + \epsilon \quad (1)$$

Being,  $X$  is  $p$ -dimensional vector transpose of the observable variables, denoted by  $x = (x_1, x_2, \dots, x_p)$ ;  $F$  is the  $q$ -dimensional vector transposed unobservable variables or latent variables called common factors, denoted by  $F = (f_1, f_2, \dots, f_q)$ , where  $q < p$ ;  $\epsilon$  is the transpose vector  $p$ -dimensional random variables or unique factors, denoted by  $\epsilon = (\epsilon_1, \text{and } 2, \dots, \epsilon_p)$ ;  $\alpha$  is the matrix  $(p, q)$  of unknown constants, called factor loads. Well-known authors like Johnson; Wichern [28] and Mingoti [29] corroborate the factor analysis applied in the construction of indexes.

#### 2.6 Scale adopted in the research

The Statistical Package for the Social Sciences - SPSS [30], version 17 tool was used to determine the proposed indexes that followed the scale advocated by Hair et al [21].

**Table 1: Scale adopted by the research adapted from Hair et al [21].**

Scale	Description
0,801 – 1,000	Excellent
0,601 – 0,800	Good
0,401 – 0,600	Regular
0,201 – 0,400	Bad
0,000 – 0,200	Terrible

### 3 RESULTS AND DISCUSSION

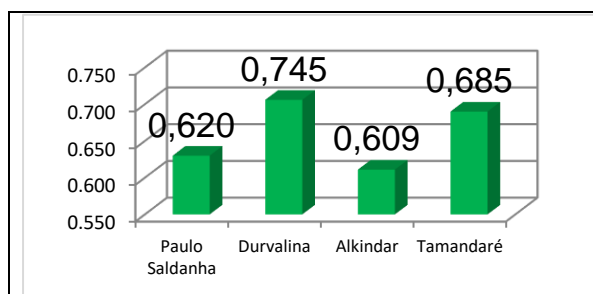
The results presented by the teachers of the 4 schools correspond to the perception index considered “good” by the scale adopted, with an average index of 0.699. The indices occurred, in descending order, at the Durvalina Estilben de Oliveira State School (0.765), followed by the Almirante Tamandaré State School (0.685), Paulo Saldanha State School (0.620) and 0.609 index at the Alkindar Brasil State School in Arouca (Graph 1).

From the School's point of view, through its technicians (administrative and managerial part), the Durvalina Estilben de Oliveira (0.630), Paulo Saldanha (0.620) and Almirante Tamandaré (0.620) State Schools presented a “good” performance index, while the Alkindar Brasil de Arouca State School had a “regular” performance index (0.495). The average perception index was 0.591, considered a regular index (Graph 2).

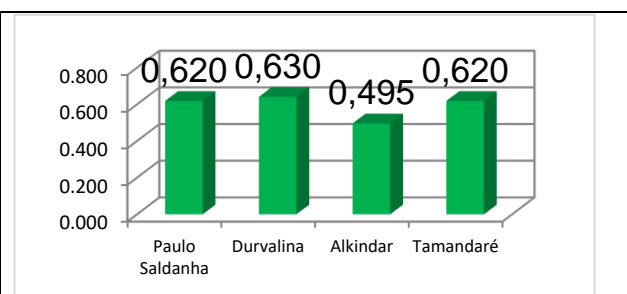
The results presented by the students were the following performances: Almirante Tamandaré State School (0.620) considered “good” performance index, Paulo Saldanha State School (0.540), Durvalina Estilben de Oliveira State School (0.530) and Alkindar Brasil de Arouca State School ( 0.460) considered “regular” performance indexes, with an average of 0.537 considered regular performance index (Graph 3).

The average of the results found for the analyzed parameters of teachers, school (technicians) and students, reaches the perception index of environmental education in elementary school for each of the schools surveyed. The Almirante Tamandaré State School obtained the best index of perception of environmental education with IPEA (0.641) considered “good” performance, followed by Durvalina Estilben de Oliveira State School with IPEA (0.635) considered “good” performance index. The State Schools Paulo Saldanha with IPEA (0.593) and Alkindar Brasil de Arouca with IPEA (0.522) obtained indexes considered “regular” (Graph 4).

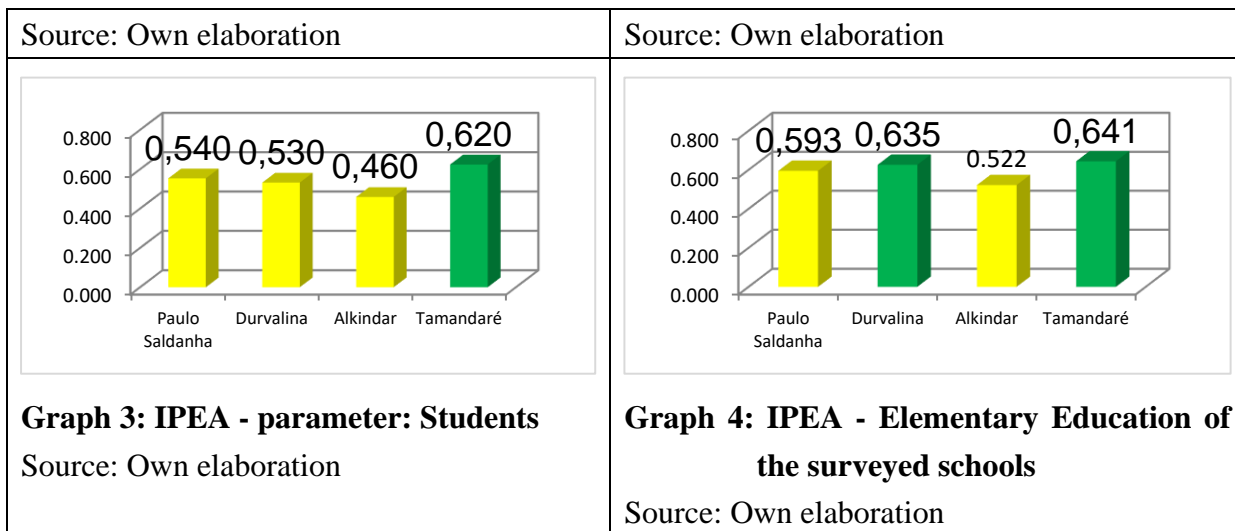
The general IPEA among all schools surveyed was considered “regular” when reaching the IPEA of 0.597.



**Graph 1: IPEA - parameter: Teachers**



**Graph 2: IPEA - parameter: School**



It is possible to perceive the distorted vision in which students, teachers and managers (technical and administrative education) find themselves in relation to the perception of the local reality, where a large part of the municipality is in the form of Legally Protected Areas - ALP's (92.06% of its territory). There is a gap between the reality of a region with 92.06% of its territory consisting of conservation units and indigenous lands and educational practice within this focus. According to Paraguassu-Chaves et al [18] the municipality of Guajará-Mirim has one of the highest rates in the world in terms of legally protected areas and even so educational practices do not go beyond what is usually done in any other region from Brazil, that is, it is clear that the perception of elementary school students about the practice of environmental education in state public schools existing in the region presented, with the exception of one School, present a performance considered only “regular”. This fact is noticeable when one observes the answers obtained when asked “do you know what Nature Conservation Units and Indigenous Lands are?” where 42.9% of the Almirante Tamandaré school, 18.2% of the Durvalina Estilben de Oliveira School and 15.4% of the Paulo Saldanha School chose the criterion “knows little” and / or “knows completely”, a fact not observed for the School Alkindar Brasil de Arouca [19]; [20].

On the other hand, those who said “they don't know” and / or “they know very little” reached the highest percentage at Escola Alkindar Brasil de Arouca with 80% followed by Schools Paulo Saldanha (79.9%), Durvalina Estilben de Oliveira (72.7%) and Almirante Tamandaré (28.6%). For those who said “more or less” the result pointed 28.6% to Escola Almirante Tamandaré, 20% to Escola Alkindar Brasil de Arouca, 9.1% to Escola Durvalina Estilben de Oliveira and 7.7% to Escola Paulo Saldanha [19]; [20]. Results that corroborate with this research. When asked “do you know that the municipality of Guajará-Mirim is almost entirely made up of Nature Conservation Units and Indigenous Lands?” the result showed that 40% of respondents from the Alkindar Brasil de Arouca School stated that they “do not know” and / or “know very little” about it, followed by the schools Durvalina Estilben de Oliveira (27.3%) and Paulo Saldanha (23.1%). For this criterion, data for the Almirante Tamandaré School were not observed. However, for those who claimed to “know completely” and / or “know little” the highest percentages found were in schools, in descending order, Escola Almirante Tamandaré (85.7%), Durvalina Estilben de Oliveira (45.4%) , Paulo Saldanha (38.5%) and 20% Alkindar Brasil de Arouca School [18]; [19] and [20]. Environmental Education is important, as it helps students to develop an idea about the factors of their



environment to establish a connection between what he has learned and his daily life. Environmental knowledge helps the student to understand reality and act on it, as well as participating in school activities and actions in the community is what Lemos and David [31] discuss in the research “Reflections on the transversal theme of the environment in teaching fundamental ”and by Lemos [32] in his master's dissertation on environment and regional development with the title “The Foundation for the Conservation of Nature of Mato Grosso do Sul and the origins of the environmental movement in the State: 1979 to 1989”.

According to Brazil [33] the general objectives on the environment for elementary education, proposed by the PCN's, are basically: the knowledge and the integrated and systemic understanding of the environment; the adoption of postures at home, at school and in the community; adoption of attitudes of respect for cultural, ethnic and cultural heritage; the perception of personal processes as a fundamental element for acting in the environment; among others. For Environmental Education, it is important to work with the local reality without losing sight of the planet's perspective in its environmental, social and cultural aspects [31]. Elementary school should offer knowledge of society and nature so that students can develop their potential and adopt social attitudes and social behaviors that allow them to live in a constructive relationship with themselves and their environment [33]. As the student gets to know the natural environment and the social environment, he / she appropriates knowledge that will be added in the articulation of actions for environmental conservation.

According to Guimarães [14], the educator is not only responsible for showing the conflicts and contradictions of this society, but helping students, in schools, to understand social and environmental relations, reflecting, even, on the meaning of their own contradictions. and conflicts in their midst. The educator then behaves as a mediator for the development of these relations of socioenvironmental conflicts in the school environment and emerges as a collaborator in supporting Environmental Education, in a transformative educational process, aimed at the construction of a new paradigm that contributes to the aspirations of a better socio-environmental quality of life and for a healthy planet. However, according to Branco; Royer; Branco [34] many challenges and demands in the educational field need to be overcome, such as, for example, the adequate training of teachers, (re) defining the role of the school in today's society and a better approach to environmental issues within the scope of Environmental Education in school context in Brazil. For these same authors, in this sense, Environmental Education has a preponderant role of leading to new initiatives, of developing new thoughts and practices, of promoting the breaking of society's paradigms, forming conscious and participative citizens in collective decisions. In addition, its role is not limited to the environment, but its range expands to the economy, justice, quality of life, citizenship and equality.

By Branco's analysis; Royer; Branco [34] While emphasizing the relevance and emergence of Environmental Education, there is still a need to overcome and improve without, however, denying advances in the area of education. It is important to highlight that, if on the one hand Environmental Education has been the subject of political discussions at national and international events in the last decades and these events have contributed considerably to the elaboration of relevant documents, laws, studies and treaties in favor of the environment and of humanity, thus building its bases, on the other hand, in school units, Environmental Education is still far from developing an effective work and with expressive

results. The authors conclude that it is common in the school context, teachers carry out Environmental Education practices as isolated actions and disconnected from scientific meanings, such as, for example, the selective collection of waste, joint efforts against dengue, the transformation of solid waste into utensils, among others, represent, in many cases, such teaching in the school environment. Despite the importance of these actions, the first aspect to be considered is that Environmental Education is not limited to this, but it needs further investigation and scientific deepening of the contents, reflection on the ideological, political and social issues that are directly or indirectly interconnected.

In this sense Tozoni-Reis [35], thinks that when reflecting on Environmental Education, the need to think and do Environmental Education is pointed out by overcoming the disciplinary barriers, by overcoming the traditional forms of education and teaching, and in the search for epistemological alternatives and pedagogical. For this author, only the relationship between knowledge and social relationships is built by the new paradigm of responsibility for human action in nature and in society. It is an approach in which the human being promotes the recovery of his relationship with nature, that is, the social characteristic of the human being who, when interacting with nature, transforms it and is also transforming it through a historical process enabling the human being, finding balance with other living beings through autonomy, social equality and emancipation [36]. And so, only then can a critical theory of Education be enough to support more conscious environmental education actions and consequent emancipatory educational actions.

From all conceptual argumentation, definition, the legal framework and the practical application of Environmental Education, it can be seen that the perceptions are different. This is because it must be considered that each individual perceives, reacts and responds differently to actions on the environment in which he lives, and the responses or manifestations that result from it are the result of perceptions (individual and collective), cognitive processes, judgments and expectations of each person [4]. For this author, environmental perception is the process of obtaining information on the part of an individual belonging to the environment in question and, from this point, this individual becomes aware of this environment and elaborates the forms of interaction and preservation of this environment.

Environmental perception is information in the same way that information generates information: uses and habits are signs of the informed place that only reveals itself to the extent that it is subjected to an operation that exposes the logic of its language [37]; [38]. These same authors defend that the perception is the mental and conscious elaboration about a determined object or fact, either clarifying, distinguishing or privileging some of these aspects, or when associating it with other objects or context.

Environmental perception provides a great service to environmental education, which in turn should promote consistent, non-contradictory results for society, which differs from the current scenario, which is more a training process than an education process itself, where Brugger [39] and Cunha; Leite [40], teach us how environmental problems end up being reduced to mere problems such as pollution, scarcity of natural resources, decreased biodiversity, recycling, among others.

According to Paraguassu-Chaves et al [18] when analyzing the perception of Environmental Education in the context of elementary education in the state schools of Guajara-Mirim, one can perceive that the level by the abstraction of society, students, teachers and technicians and school managers. What seems to live in a moment of institutional crisis, values, ethics and behavior. On the one hand, there is a

legal condition that corresponds to a strong environmental policy represented by 92% of its preserved territory. On the other hand, the garbage is thrown on the streets, the bones of slaughtered animals can be seen in the urban perimeter of the city, the domestic garbage of the city can be deposited in open dumps without any criteria, exposed wasteland, the streets without conditions access, people depositing their debris in the middle of the street and on sidewalks, deforestation without technical criteria, burning without authorization from environmental agencies. And, still through the third bias, it is evidenced the low transversal power among all the subjects of school formation of the students in the researched schools, besides the need for a better formation of contents and pedagogical actions for the teachers, facts these also found by Carvalho et al 19]; [20]. In view of the arguments presented, it is understood that there is a consensus on the need to problematize the environmental issue at all levels of education, on the other hand, doubts arise regarding the valuation and effectiveness of the environmental issue as an educational action at all levels and in a way interdisciplinary, mainly due to the lack of qualified managers and teachers to articulate this set of knowledge, attitudes and environmental sensitivities in the existing disciplines, which can negatively reflect the perception of Environmental Education in students.

#### **4 CONCLUSION**

By the level of abstraction, it was possible to observe that elementary school students from state public schools, teachers and school technicians and managers live a moment of institutional crisis, of values, ethics and behavior, so that the citizens' attitudes, with regard to environmental practice, which does not, therefore, correspond to the legal condition of a region with a strong environmental policy, mainly because it has 92% of its territory occupied by Conservation Units and Indigenous Lands.

The results presented by the teachers correspond to the perception index considered "good" by the scale adopted, with an average index of 0.699. From the School's point of view, through its technicians (administrative and managerial part) the perception index was 0.591 considered a "regular" index. The results presented by the students 0.537 considered a "regular" performance index. The general IPEA among all schools surveyed was considered "regular" when reaching the IPEA of 0.597. With the results found, it is understood that there is a reasonable expressiveness of connection between the real world and what happens in society and what involves the academic community with the practice of environmental education in the school environment. Environmental Education is necessary to corroborate the breaking of paradigms in society, capable of contributing to the formation of critical citizens, concerned with the environmental issue, capable of deciding, acting and combating the demands that deal with environmental problems from the perspective of the process educational. It is necessary to rethink the educational content as a cross-cutting theme, to raise the discourse of instigating to rethink new practices, to value the relationship between man and nature and to discuss sustainability. In spite of the well-considered "good" index, the need for better teacher training is evident in order to guarantee, in fact, the teaching of Environmental Education. A curricular restructuring is necessary to support Environmental Education, avoiding reductionist, fragmented educational practices and an ineffective approach.

It is necessary to articulate Environmental Education, strengthening and providing training with a more critical bias and guiding it to what is provided for in the PCN's and DCN's.

Finally, it can be seen that the Guajar-Mirim elementary schools impose considerable risks to the environmental awareness of future generations, as they present certain deficiencies to fulfill their institutional role as a social transformer, configuring themselves as a limiter of sustainable development and environmental awareness.

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