



REVIEW ARTICLE

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ENVIRONMENTAL SUSTAINABILITY: THE PERCEPTION OF HIGH SCHOOL STUDENTS IN THE MUNICIPALITY OF PACAJUS, CEARÁ

***Ana Flávia Ferreira da Silva, Francisca Aline da Silva Andrade, John Hebert da Silva Félix, Olienaide Ribeiro de Oliveira Pinto, Aiala Vieira Amorim and Juan Carlos Alvarado Alcócer**

Academic Master's Degree in Sociobiodiversity and Sustainable Technologies, University of International Integration and Afro-Brazilian Lusophony, 62790-970, Redenção, Ceará, Brazil

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Corresponding author:

Ana Flávia Ferreira da Silva,

ABSTRACT

Environmental sustainability is surely one of the most relevant issues for society and this is certainly due to the misuse of natural resources, which are increasingly scarce. This fact arouses interest in knowing how young people, the future of humanity, think about it. We understand that due to the importance of this theme, it should be worked on at school from an early age, not only in an isolated manner, but also in a clear, objective and contextualized manner, just as the NCP's mandate. Thus, knowing the importance of environmental sustainability for society, it was intended in this study to investigate through the perception of students, if environmental sustainability is a theme present in their lives and if in the school researched there are actions aimed at this direction. The research was conducted through a qualitative approach, in which data collection was applied printed questionnaires, with students from a high school located in the city of Pacajus, Ceará. The survey results show that students are interested in environmental issues, which they have sustainable consumption habits and that at the school surveyed there are practices focused on the topic, but such actions need to be improved.

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INTRODUCTION

Currently, it is possible to visualize that the environmental impacts resulting from anthropic actions have reached large proportions and have concerned a part of society that aims for balance between man and nature and the well-being of future generations (POTT; STAR, 2017). Because of the various environmental damages observed in recent times, terms related to environmental preservation have gained notoriety, as is the case of the word sustainability, which is of Latin origin and means to sustain, conserve, protect and maintain in balance (SILVA *et al.*, 2016). Therefore, in the current context in which society is inserted, one of the alternatives capable of minimizing environmental problems is the dissemination of practices that adopt sustainable principles and that collaborate with the conservation of natural resources, nothing better than within the school space, which is where students begin the critical process with the reality in which they live.

Inside the schools, it is possible to perceive the existence of projects aimed at environmental education; however, these are conceived in a way in which it can be observed that there is a separation between knowing and living. The traditional school still insists on having its gaze turned only on obtaining good grades and performing works based on the transmission of content. We understand that this type of methodology adopted by some schools is not able to provide experiences of environmental education that enable reflection and criticality of students about their experiences (DEMOLY; SANTOS, 2018). At school it is necessary to understand that it is not only a place where knowledge is transmitted, but also as an institution that has the function of training active and participative citizens, able to exercise their rights and duties responsibly. According to Frago and Nascimento (2018), the terms Environment and Environmental Education have gained prominence and have been the subject of discussions in several spaces; however, the approach to these themes does not occur clearly and specifically. Thus, in the case of the physical

spaces of schools, often do not present these themes, with the teaching and learning policies. As presented in the National Curriculum Parameters (PCN's), the purpose of the Transversal Themes, as is the case of Environmental Education, is that students from the studies of such topics, can "develop the ability to position themselves before the issues that interfere in collective life, overcome indifference and intervene responsibly" (BRASIL, 1998. P. 26). Therefore, it is perceived that the objective of such themes is to make students critically visualize the reality of Brazilian society and can establish themselves as a social agent capable of contributing to transform the society. However, for this to happen, it is necessary that the school accepts to work beyond theory, but with attitudes that favor the formation of values and above all with practical actions that arouse the student's interest in learning to love, respect and practice actions aimed at the conscious use of resources from nature (MEDEIROS *et al.*, 2011). In this context, the objective of the work was to investigate sustainable development and environmental education that are addressed and discussed in the classroom, since environmental issues require a new attitude of environmental valorization and the school, being an institution that has social functions, has the obligation to offer students environmental content that allows a contextualized view of the reality in which they live.

METHODOLOGICAL PROCEDURES

This research is descriptive and exploratory in nature. It was conducted in a high school located in the city of Pacajus, Ceará. In this research was sought to know how the theme environmental sustainability is being inserted in the school curriculum and discussed in the classroom, since it is a very current theme and has been the object of discussion worldwide. Research related to environmental issues allows the development of a critical society, since through them; the population is encouraged to adopt practices to mitigate the damage caused over the centuries by humanity. In this sense, the methodology of this study was developed according to the steps below:

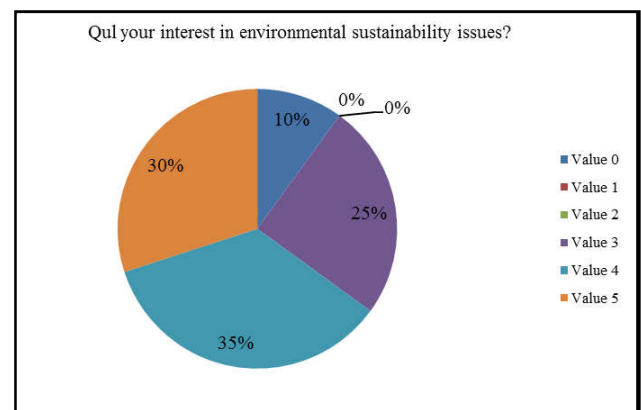
1. A structured questionnaire with objective and subjective questions was applied for data collection. The research subjects were 1st year students.
2. The questions presented in the questionnaire aim to determine qualitatively how well the students know and are interested in issues related to environmental sustainability.
3. The students themselves without the intervention of the researchers completed the answers individually. After completion, each questionnaire was duly delivered.
4. The data obtained were compiled and analyzed through the MS Excel 2016 program.
5. The plots and graph analysis were performed, presented and discussed in this study.

It is noteworthy that due to ethical principles, the school where the research took place had its name preserved, as well as the identity of each of the students involved in this study. However, in order to maintain the organization of the survey, each questionnaire was numbered so that it could be carefully analyzed only once.

Based on the questionnaires applied to the students, the study and plotting of graphs were made based on the data gathered. A total of 20 (twenty) students participated in the survey.

RESULTS AND DISCUSSION

Order to know about the students' perception regarding environmental sustainability, in the first question of the questionnaire we asked: considering 0 (zero) a minimum value and 5 (five) the maximum value, what is your interest in environmental sustainability issues? As a response, it was found that 30% have interest 5 on the subject and 35% of the students marked as having interest 4. Others answered interest 3 representing 25%, while the others said they have interest 1 characterizing 10% of the students, as presented in Figure 1



Source: Prepared by the authors

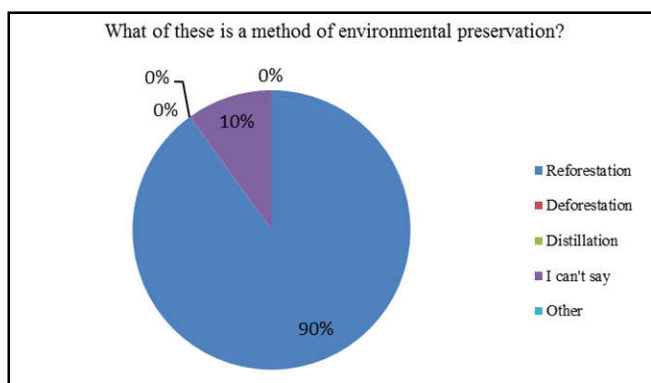
Figure 1. Interest in sustainable issues

The importance of sustainable actions in the midst of the current situation of extreme degradation of the environment and ecosystems comprises an indispensable combination of feelings involving sustainability. According to JACOBI (2003, p.190) "the environmental dimension is increasingly configured as an issue that involves a set of actors from the educational universe", so we should realize how important is the engagement of young people and school with environmental issues. We can see through the first question made to students that they have interest with the theme environmental sustainability, but when we ask: how would you conceptualize Environmental Sustainability? 40% of the students did not answer the question; however, the 60% who answered presented simple, objective arguments that demonstrated awareness of what they reported. The following statements were selected according to their statements:

- 13 A way to help the environment. 12; Method of saving the world.
- 09 The way we use natural resources.
- 08 Take care of what is ours, help and maintain our pleasant environment. 03 Habit to preserve the planet, fighting bad actions that harm it.
- 02 Defines the way in which man makes use of natural assets.

Analyzing the answers we can observe that the vast majority of students know what sustainability would be, because sustainability results in the use of renewable resources in a timely manner and in quantities adaptable to their measure of renewal (BRASIL, 1998).

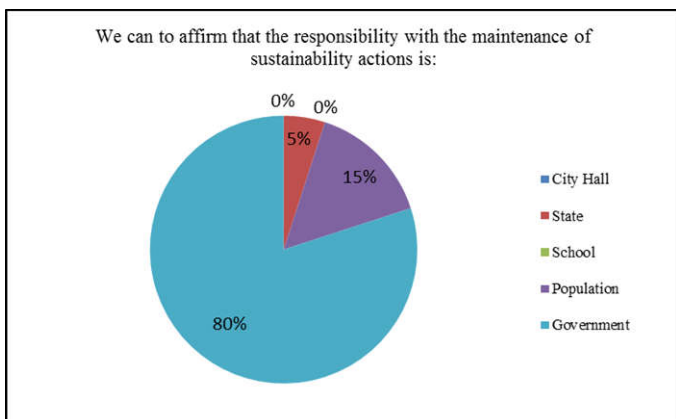
We also noted that despite the interest in the sustainability issue, a reasonable number of participants could not say what it would actually be. Therefore, we can ask: what impact, in fact, does the students' interest in sustainability have on their social life? If we do a search of the articles, we find several researches on the subject, but how many researches check if the interest also becomes a daily practice? Very likely few. In this perspective, we asked the students: Which of these methods is environmental preservation? Having as alternatives (a) reforestation, (b) deforestation, (c) distillation, (d) I cannot say, (e) others. For the option and, we asked you to quote if possible. In analyzing graph 2 we can state that 90% of students believe that reforestation is an environmental preservation method, 10% do not know how to say, as shown in Figure 2.



Source: Prepared by the authors.

Figure 2. Methods of environmental preservation

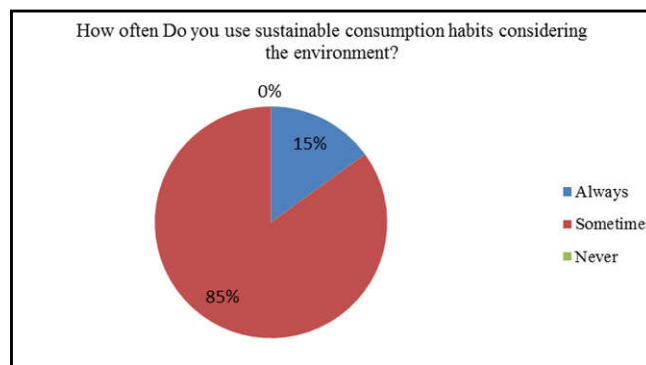
By checking the results we can see that 90%, which corresponds to 18 (eighteen) students, pointed out that reforestation is a way of environmental preservation, which is very commendable, because according to JACOBI (2005, p. 239) "this shows that changes are possible" when working on issues such as environmental preservation can help society in general. In another question we asked the students to mark to whom the responsibility with the maintenance of sustainability actions is intended, the options proposed were: (a) the municipality, (b) the state, (c) the schools, (d) the population, (e) the government and the population. To this question 80% of the students stated that it is the responsibility of the government and the population, 15% said that it would be the obligation of the schools and 5% said that it is a duty of the State to maintain sustainability actions according to Figure 3.



Source: Prepared by the authors

Figure 3. Maintenance of sustainable actions

According to Moacir Gadotti (2010, p. 9) "the responsibility to educate for sustainability is everyone's", so it is not about who would be responsible for actions aimed at sustainability, but that all people take responsibility for their actions, making the environment balanced. Jacobi (2003) emphasizes the importance of the internalization of environmental issues and the need for interests to strengthen globalized actions for environmental issues. Taking into account that 80% of the students interviewed affirm that it is the responsibility of the government and the population to maintain actions with sustainability (graph 3), we ask: how often do you use sustainable consumption habits considering the environment? Such a question had (3) three items, (a) always, (b) sometimes, (c) never. To this question 15% answered that they always use sustainable consumption habits and 85% of the students answered that they only sometimes use such habits. Let us see Figure 4.



Source: Prepared by the authors

Figure 4. Frequency of sustainable habits

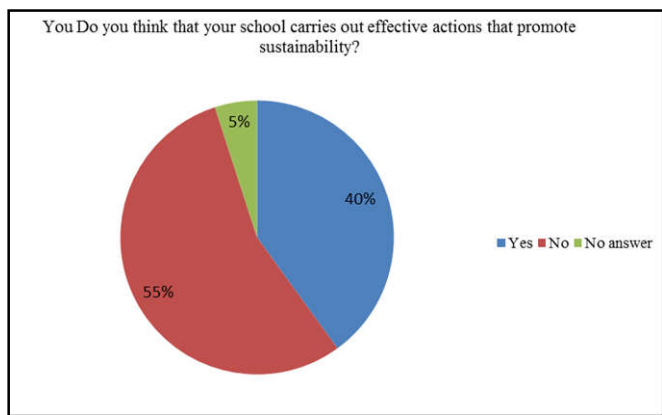
What we can see is that if we compare graph 3 that deals with the maintenance of sustainable actions with graph 4 that deals with the frequency of sustainable habits, we note that practically the same total of students who claim that it is the responsibility of the government and the population to maintain actions aimed at sustainability, also state that they make use of sustainable consumption habits. It is worth mentioning, "Environmentally correct behaviors should be learned in practice" (MEDEIROS, et al., 2011. P.3). And these attitudes are praiseworthy, because the students are multipliers of environmental knowledge and practices in their home, as well as in the community where they live. When we ask students if: do you consider that your school carries out effective actions that promote sustainability? To this question 40% answered yes, 55% answered no and 5% did not answer, as can be seen in Figure 5.

Of the 40% of students in which answered that the school carries out actions that promote sustainability, some cited the actions. Let's see, let's see:

- Differentiated waste bins, e.g. paper, plant, etc.
- Planting and harvesting vegetables in the grounds of the school, garbage cans for garbage divisions, etc.
- 18 garbage bins with garbage disposal scattered around the school. 20 They put dumps.

In the view of all students who made a quotation, it is evident that they recognize, as an action that the school promotes for environmental sustainability would be the use of garbage bins for selective collection. Schools need to develop a work for environmental issues, because they have contributed to the

training of people capable of developing a work aimed at promoting the environment as well as life (MEDEIROS, *et al.*, 2011).



Source: Prepared by the authors

Figure 5. Actions for sustainability

Therefore, it is important to highlight that young high school student, even not knowing how to correctly define the term sustainability, and this is due to various events. However, students believe and are interested in environmental sustainability issues, and see the school as a place where they can acquire correct knowledge about this subject, so that they can in fact contribute, increasingly, to the maintenance of the environment.

Conclusions

Based on this study, it was noticed that most of the students participating in the research are interested in issues related to environmental sustainability and that the school presents itself as a knowledge mediator, although, most of the time, it does not offer practical and contextualized actions with the reality of the students. Currently, environmental education practices have been widely discussed. The concern with the intense degradation of natural resources and the well-being of current and future generations arouses the interest of society in wanting to adopt environmental conservation practices. We found that a large majority of students adopt sustainable consumption practices and are aware of their social and environmental responsibility as citizens.

Therefore, the awareness of the effective construction of environmental education within the school space deserves attention on the part of managers and teachers, since the future of humanity depends on the existing balance between man and nature and the school is the space where students become critical and reflective of issues that guide the life of society.

REFERENCES

- BEGGAR, A. B.; M. J. S. L.; SOUSA, G. L.; OLIVE TREE, I. P. The importance of environmental education in school in early grades. *Revista Faculdade Montes Belos*, v. 4, n. 1, 2011.
- DEMOLY, K. R. A; SANTOS, J. S. B. Learning, environmental education and school: ways to get involved in the experience of students and teachers. *Environment & Society*, v. 21, p. 4- 20, 2018.
- FRAGOSO, E; NASCIMENTO, E. C. M. Environmental education in the teaching and school practice of the Cândido Mariano State School - Aquidauana/MS. *ENVIRONMENT & EDUCATION*, v. 23, n. 1, p. 161-184, 2018.
- GADOTTI, M. The Earth Charter in education. São Paulo: Editora e Livraria Instituto Paulo Freire, 2010. (Planetary citizenship; 3)
- JACOBI, P. R. Environmental education, citizenship and sustainability. *Cadernos de Pesquisa*, n. 118, p. 189-205, 2003.
- JACOBI, P. R. Environmental education: the challenge of building a critical, complex and reflective thinking. *Revista Educação e Pesquisa FE-USP, São Paulo*, v. 31, n. 2, p. 302-313, may/ago. 2005.
- National Curriculum Parameters (PCNs). Third and fourth cycles of elementary school. Crosscutting themes. Brasília, MEC/SEF, 1998.
- POTT, C. M; ESTRELA, C. C. Environmental history: environmental disasters and the awakening of new thinking. *Advanced Studies*, v. 31, n. 9, p. 1-13, 2017.
- SILVA, D; ESTENDER, A. C; MACEDO, D. L; MURAROLLI, P. L. The Importance of Sustainability for Business Survival. *Entrepreneurship, Management and Business*, v. 5, n. 5, p. 74-91, 2016.
