

## ENVIRONMENTAL EDUCATION AND SUSTAINABILITY IN BASIC AND TECHNICAL EDUCATION IN AN EETEPA IN THE MUNICIPALITY OF BELÉM, IN THE STATE OF PARÁ, IN THE AMAZON REGION



<https://doi.org/10.56238/arev6n4-478>

Submitted on: 11/30/2024

Publication date: 12/30/2024

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### ABSTRACT

Environmental Education in schools in Pará is crucial to promote sustainability. Recently, the inclusion of a mandatory subject of Environmental Education in the curriculum of basic education was established, due to debates about the protection of the environment. The objective of this article was to explore the implementation of Environmental Education in a Technical Education School in the State of Pará - EETEPA in the municipality of Belém, highlighting its relevance for the formation of critical, reflective and responsible citizens, capable of contributing to the construction of a sustainable future. This is a descriptive and qualitative study carried out in a EETEPA, in Belém. Positive experiences of the institution stand out, which has implemented projects and pedagogical practices aimed at sustainability. Activities such as lectures, courses, workshops, vegetable garden, planting and awareness campaigns were carried out, positively impacting the school and the community.

**Keywords:** Environmental Education. Sustainability. Legislation. Environment and Basic Education.

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## INTRODUCTION

Environmental Education can be understood as a joint methodology, where each person can assume and acquire the role of the main member of the teaching/learning process to be developed, as long as each person or group is an actively participatory agent in the analysis of each of the environmental problems diagnosed and thus seeking solutions, results and even preparing other citizens as transforming agents, through the development of skills and competencies and the formation of attitudes, through ethical conduct, consistent with the exercise of citizenship (Roos & Becker, 2012).

Environmentalism refers to collective behaviors and practices that aim to change perceptions and attitudes between the relationship between human beings and the natural environment. For environmental education to really occur as a form of sustainability, it needs to start in schools (Bortolon, Mendes, 2014).

Environmental Education in basic and technical education is essential to promote a sustainable environment. Recent debates at the global, national and local levels on environmental issues have led to the decision to make the inclusion of an Environmental Education subject mandatory in the curriculum of schools in the state of Pará. (Law No. 9,981 of 2023).

In this sense, the research was carried out at the State Technical School of Pará (EETEPA), in which there are projects and actions focused on environmental issues, playing an important role in incorporating Environmental Education into their curricula, promoting training that not only instructs, but also sensitizes students to the need for sustainable practices (Oliveira, Neiman, 2020).

It is important to emphasize that there are numerous environmental principles, and all of them aim to protect all species of life on the planet, providing a satisfactory quality of life for human beings for present and future generations (Bortolon, Mendes, 2014).

Thus, this work seeks to explore the implementation of Environmental Education in a EETEPA in the municipality of Belém, highlighting its relevance for the formation of critical, reflective and responsible citizens, capable of contributing to the construction of a sustainable future (Bortolon; Mendes, 2014).

With this, allow students a comprehensive view of the environment in which we live, understanding that we, human beings, are an integral part of it and in this perspective of sustainable development it is evident that material progress can be achieved with the preservation of ecosystem resources and services for successive generations. The

contribution of this article is to allow the awareness of what sustainable development is through an Environmental Education perspective and thus the formulation of ideals, not only for human well-being, but also for the sustainability of the environment (Roos & Becker, 2012).

In this logic, Environmental Education seeks to value the harmonious coexistence between the environment and the other species that inhabit the planet, helping a critical analysis of the anthropocentric principle, which has often led to the inconsequential destruction of natural resources and of various species (Ramos, 2010).

## **METHODOLOGY**

For the realization of this article, a descriptive, qualitative methodological approach was adopted, with field research such as technical visits to the school area, workshops, and a bibliographic review carried out in databases, SciELO and PubMed. Materials on Environmental Education were used in basic education, especially after the mandatory nature of this discipline in public schools in Pará, according to (Law No. 9,981 of 2023). The objective was to identify articles and materials that discussed Environmental Education and sustainability, focusing on basic and technical education, even if not addressing all these aspects simultaneously.

The research included the selection of academic articles and the law that made Environmental Education mandatory in schools in the state of Pará and normative documents that explore the various nuances about the environment. A systematic search was used with specific terms, such as "Environmental education", "Sustainability", "environment", "Basic and Technical Education". Initially, a systematic search was carried out to collect relevant articles and texts, followed by the selection of the most pertinent ones. The preliminary selection was carried out based on the reading of titles and abstracts, resulting in 17 materials that directly addressed Environmental Education or presented relevant analyses on the theme. After a thorough reading, 6 of these materials were considered significant for the research objectives.

The analysis process consisted of categorizing the selected articles, taking into account their relevance and depth in terms of Environmental Education and sustainability. In addition, the normative documents were examined to understand the legislative basis that supports this theme, including the interpretation of the guidelines, laws and regulations that guide Environmental Education in Basic Education. Based on the review and analysis

of the materials, articles and syntheses were prepared that highlight the main findings, offering a comprehensive and objective view of each segment related to the theme.

The research included the selection of academic articles, online texts and normative documents, using a systematic search with specific terms such as "environmental education" and "sustainability". After the collection, the most relevant texts were chosen for the discussion.

The stages of the projects included a cycle of lectures, preparatory courses, orientation workshops, education and health actions, plastic recycling practices, planting of legumes and native vegetation in the region and awareness campaigns in the school community.

## RESULTS

EETEPA has generated positive and significant impacts on the community through its intra-school projects and pedagogical practices focused on the environment and sustainability. This corroborates Rosa, Kauchakje, Fontana (2024), when they argue that the school effectively plays its role as a social leader committed to improving the conditions of quality of life, in the sense of contributing to the sustainability of the community and to life on the planet. These are aspects that demand collective construction and theoretical-practical maturation of the Social Field of EE.

Image 1 - School garden infrastructure project



Source: authors' own collection, 2024.

Image 2 – Construction of the vegetable garden.



Source: authors' own collection, 2024.

Image 3 – Planting development.



Source: authors' own collection, 2024.

It is noteworthy that the sustainable education projects had as their main objective to develop ecological awareness among students and teachers, a goal successfully achieved. According to Bortolon and Mendes (2014), Ecological awareness is linked to the preservation of the environment. The importance of preserving natural resources has become a global concern and no country can exempt itself from its responsibility. The evolution of man has been long until he reached a full and complete awareness of the need



to preserve the environment, it is constantly seen, through the media, the contamination of the environment by nuclear waste, by the disposal of chemical waste, domestic, by the greenhouse effect, deforestation among other causes that cause aggression to the environment.

In addition, the school offers an environmental course in two modalities of entry into the environmental area: integrated high school for students who attend high school and concomitant technical school, which covers students in the morning and afternoon periods, and the subsequent course for people who have already completed high school, also available in the afternoon and night shifts. It was also observed a 70% growth in active participation in workshops and projects, in addition to a 30% reduction in incorrect disposal in the institution and 50% that comprises are about sustainability.

Image 4 – Hygiene and health promotion actions.



Source: authors' own collection, 2024.

Image 5 – Tree planting actions.



Source: authors' own collection, 2024.

In this way, this experience report converges with what was presented According to Pinhabe, Cabral and Galvão (2022), when they state that Environmental Education and sustainability can contribute to the realization of a culture that promotes sustainable development, in line with the 2030 Agenda. But, for this, it is necessary to reflect on the relevance of an education focused on the interdependent and interrelational vision of life on our planet, incorporating the sense of change in culture and responsibility of this and future generations.

Image 6 – Ecobag workshop.



Source: authors' own collection, 2024

## DISCUSSIONS

Recent debates at the global, national and local levels on environmental issues have led to the decision to make the inclusion of an environmental education subject mandatory in the curriculum of schools in the state of Pará. (Law No. 9,981 of 2023). For Bortolon and Mendes (2014), in Brazil there is a great need for awareness in schools from the beginning to higher education, it is necessary to include a specific discipline of environmental education.

In 1999, Environmental Education became Law No. 9,795 – Environmental Education Law, where in its Article 2 it states: environmental education is an essential and permanent component of national education, and must be present, in an articulated way, at all levels and modalities of the educational process, in a formal and non-formal character. It should be noted that Brazil is the only country in Latin America that has a specific national policy for Environmental Education (Bortolon, Mendes, 2014).

From this, EETEPa in Belém plays a fundamental role in promoting Environmental Education and sustainability, forming citizens who are aware and engaged in the protection of the environment. The Institution serves as a model for other schools and for society as a whole, demonstrating that environmental education is essential for building a sustainable future in a globalized world.

Even so, the Institution encourages educators to incorporate Environmental Education into their curricula, promoting the formation of conscious and responsible citizens, in addition to demonstrating that environmental education is fundamental for building a sustainable future in a globalized world.

In this sense, the production, transmission and appropriation of knowledge in critical educational processes aim to contribute to the confrontation of alienated social relations and to overcome the environmental and societal crisis. The research shows this concern in the didactic transposition of the specific knowledge of Environmental Education with the local social practice for the development of practical, conceptual and attitudinal learning in favor of humanized relationships with nature (Loureiro, 2015).

Thus, Environmental Education promotes an awareness of what can really be understood about what sustainability is, since, when studying sustainable development, education should be aimed at as a basis for a conscious concept that really promotes sustainability (Roos & Becker, 2012).

According to Rosa, Kauchakje, Fontana (2024), discussing EE in school is to seek ways to overcome the contradiction in "thinking and doing" in school management. And,



thus, to move forward to overcome the hegemony of "pragmatic actions" in the context of EE, in the sense of forging references of critical EE, in line with the guidelines expressed in the National Curriculum Guidelines for Environmental Education.

In this aspect, EETEPA associates theory with practice, when it operationalizes its educational projects aimed at protecting the environment in the various actions shown in this research, which enhances sustainable habits on the planet.

The various species existing on our planet deserve all our respect. In addition, the maintenance of biodiversity is fundamental for our survival, since it is necessary to plan the use and occupation of land in urban and rural areas, considering that it is important to have decent housing, work, transportation and leisure conditions, areas for food production and protection of natural resources (Roos & Becker, 2012).

## **CONCLUSION**

From what was exposed in this work as sustainable practices in the school, it can be concluded that EE was developed as it should, producing positive aspects in the school community and surroundings.

In this way, EETEPA carries out a cycle of lectures, preparatory courses, orientation workshops, education and health actions, plastic recycling practices, planting of legumes and native vegetation in the region and awareness campaigns in the school community. Thus, this Institution should serve as an inspiration in the three spheres of government, and to our educators who incorporate Environmental Education as sustainable practices in the globalized world.

Therefore, it is in school that the socialization process occurs and what is (re)produced in it is valued and respected, becoming a social model of environmentally correct behavior that must be learned in practice, in the daily life of school, contributing to the formation of responsible citizens. Thus, Environmental Education is a way to connect such processes in the student's mentality, forming citizens who are aware and concerned about the environmental theme.

It is verified that the practice of Environmental Education in schools is the way to make society more culturally complete, through educational actions, adequate conditions and training for educators so that they can work on themes and activities of Environmental Education, in a way that enables the critical awareness of students, generating new concepts and values about nature, contributing to the preservation of the environment.

## **ACKNOWLEDGMENT**

We thank EETEPa for the services provided to society and the construction of knowledge about awareness, which contributes primarily to the awareness of citizens in the way they think and act about the environment that surrounds them. The institution demonstrates that Environmental Education is fundamental for building a sustainable future, and that everyone's participation is essential to achieve this goal.

## REFERENCES

1. Bortolon, B., & Mendes, M. S. S. (2014). A importância da educação ambiental para o alcance da sustentabilidade. *Revista eletrônica de iniciação científica*, 5(1), 118-136. Available at: [www.univali.br/ricc](http://www.univali.br/ricc). ISSN 2236-5044.
2. Lei Ordinária nº 9.981 de 06 de julho de 2023. (2023). Institui a Política de Educação Formal para o Meio Ambiente, Sustentabilidade e Clima no estado do Pará, tornando a educação ambiental componente obrigatório nas escolas da rede estadual de ensino paraense.
3. Loureiro, C. F. B. (2015). Educação ambiental e epistemologia crítica. *Revista Eletrônica do Mestrado em EA*, 32(2), jul./dez.
4. Pinhabe, I. S., Cabral, R., & Galvão, T. G. (2022). Comunicação e educação para o desenvolvimento sustentável: a articulação entre graduação na Unesp e a Agenda 2030. *Organicom*, 19(39), 32-47.
5. Rosa, M. A., Kauchakje, S., & Fontana, M. I. (2024). Educação ambiental na escola: Literatura internacional e análise de estudos brasileiros. *Revista Brasileira de Educação*, 29. <https://doi.org/10.1590/S1413-24782024290030>.
6. Roos, E., & Spode, B. (2012). Educação ambiental e sustentabilidade. *Revista Eletrônica em Gestão, Educação e Tecnologia Ambiental REGET/UFSM* (E-ISSN: 2236-1170). Universidade Federal de Santa Maria – UFSM, PPGEIO do Centro de Ciências Humanas do Centro Universitário Franciscano (UNIFRA), Santa Maria, RS, Brasil.
7. Oliveira, L., & Neiman, Z. (2020). Educação ambiental no âmbito escolar: Análise do processo de elaboração e aprovação da Base Nacional Comum Curricular (BNCC). *Revista Brasileira de Educação Ambiental*, 15(3), 36-52.