



Environmental Education from the Perspective of Paulo Freire: A Critical Analysis

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ABSTRACT

Paulo Freire (1921-1997) was an educator and philosopher, an advocate of Critical Pedagogy and popular education, asserting that education holds the power of emancipation and social transformation. Recognizing the significance of this educator in the national and international education scenario, this article aims to analyze Paulo Freire's perspective on Environmental Education (EE) and how his epistemological approach relates to this field. The data collection employed a literature review through Integrative Review (IR) to analyze, assess, and synthesize the connections between Freire's principles and the challenges of EE. This work contextualizes Paulo Freire's view on environmental education within his works and broader contributions to critical pedagogy. It establishes meaningful connections between Freire's concepts and principles and environmental education, providing a deeper understanding of the intersection between these two fields. Although Freire was not an environmental educator, his works indicate significant links with the theme, including praxis, participation and dialogue, contextualization, and critical awareness.

KEYWORDS: Critical environmental education. Freirian epistemology.

1 INTRODUCTION

The growing concern over climate change and the global environmental crisis highlights the urgent need for a sustainable approach to education. Environmental Education (EE) plays a crucial role in raising awareness and shaping a responsible society, encouraging actions for environmental protection and the promotion of a sustainable future. The fact that climate change is on international agendas underscores the alarming nature of the environmental crisis facing humanity, jeopardizing the quality of life for future generations. This crisis, rooted in the Industrial Revolution and exacerbated by uncontrolled exploitation of natural resources for economic purposes, poses a significant threat.

The planet is already experiencing the impacts of climate change, with frequent reports of severe droughts, melting polar ice caps leading to rising sea levels, global temperature increases, wildfires, and more. This unbridled exploitation disregards the fact that resources are finite, emphasizing the need for sustainable consumption.

Environmental Education (EE) plays a crucial role in raising awareness and shaping a responsible society, encouraging actions for environmental protection. EE aims to contribute to the formation of a sustainable and balanced future for current and future generations (LINNANVUARI, 2019).

EE is a multidisciplinary field, with several theorists contributing to the discourse over time, including Fritjof Capra, Enrique Leff, Carlos F. Loureiro, Moacir Gadotti, among others. Despite being more recognized for his work on popular education and critical pedagogy, Paulo Freire also made significant contributions to EE in terms of awareness and action for social transformation. Freire emphasized that EE can only occur through societal action and participation.

Paulo Freire advocated for active student participation in the educational process through dialogue and collaboration. In Environmental Education, this means involving students in discussions and activities that promote reflection, expression of opinions, and participation in finding solutions to environmental challenges.

In the face of the mentioned environmental crisis, Paulo Freire emerges as a key figure in education, considering the reflection he promoted on the importance of praxis, i.e., theory and practice. Consequently, we choose to engage in a dialogue with Paulo Freire's perspective on Environmental Education, discussing his contributions to teaching. Although the author did not specifically focus on EE, his works find practical application in discussions on the subject.

Loureiro (2006) recognizes in Freirean thought the possibilities of change regarding oppressive authoritarianism in various sectors related to EE. He states, "His sympathy for environmental education, his love for life, his concept of education make Freirean pedagogy a reference point for environmental educators of all matrices within the critical and emancipatory field."

Paulo Freire advocated for a critical and liberating education where students are the main actors in constructing their knowledge. He emphasized the relevance of awareness, dialogue, coexistence, and student participation in the formative process. When applying these principles to EE, Freire underscored the need for a participatory approach to environmental issues, actively seeking improvements.

Paulo Freire's influence on national and international education is evident, especially concerning Critical Pedagogy and popular education. While better known for these areas, this article aims to explore Paulo Freire's vision of EE, highlighting his contributions to awareness and action in social transformation. Although not classified as an EE theorist, Freire's ideas on praxis, participation, dialogue, and critical consciousness provide a solid foundation for integrating these concepts into environmental education.

2 OBJECTIVES

This article aims to describe Paulo Freire's epistemological approach regarding Environmental Education (EA) and analyze how his perspective aligns with other authors and theories in EA. Additionally, it seeks to discuss how Freire's ideas can enhance EA teaching by promoting a more critical and engaged approach.

3 METHODOLOGY

To achieve the proposed objectives, this research employed a methodological approach based on a comprehensive literature review through Integrative Review (IR), following Souza; Silva; Carvalho (2010). This review encompasses not only the analysis of works and documents directly related to Paulo Freire and Environmental Education but also a selection and review of academic articles exploring the intersection of these thematic areas. The articles were selected using the Scielo search engine. The search terms used were: "Environmental Education AND Paulo Freire."

The choice to incorporate specific articles addressing the theme allows for a broader and updated analysis of the connections between Paulo Freire's ideas and key concepts in Environmental Education. By considering existing research, this methodological approach seeks to provide a more comprehensive and well-founded understanding of Freire's contributions to

the field of Environmental Education. The review of these articles contributes to a more solid understanding of the practical implications and applications of Freire's ideas in the context of Environmental Education.

4 RESULTS

4.1 Paulo Reglus Neves Freire – Paulo Freire (1921-1997)

Paulo Freire was a Brazilian educator and philosopher. Born on September 19, 1921, in the city of Recife, state of Pernambuco, he passed away on May 2, 1997, in São Paulo. He is recognized in the history of global pedagogy for his contributions to critical pedagogy and popular education. He is honored as the Patron of Brazilian Education by Law No. 12,612 of April 13, 2012, and his critical-dialectical Freirean epistemology is universally acknowledged (JAMBEIRO and FERREIRA, 2021).

The information about Paulo Freire's biography that I will describe was extracted from his interview with the Oral Memory Project of the Elderly, Testimony of: Paulo Reglus Neves Freire Interviewer: Antônia Terra Interviewed on 10/16/1992 Realization Museum of the Person, in addition to a review of articles addressing his biography.

Paulo Freire began studying law at the University of Recife in 1943 but also delved into the philosophy of language during the same period. However, he never worked in the profession for which he graduated, choosing instead to work as a Portuguese language teacher at a secondary school.

In 1946, Paulo Freire started working with illiterates as the director of the Department of Education and Culture in the state of Pernambuco. In 1961, he became the director of the Department of Cultural Extensions at the University of Recife, initiating popular literacy during this period. It was through this work that the Paulo Freire Literacy Method was developed. In his interview with the Oral Memory of the Elderly, he mentioned that he and his group successfully taught literacy to 300 plantation workers in just 45 days.

During João Goulart's presidency, the National Literacy Plan was created, but with the military coup, the plan was extinguished. During this period, Paulo Freire was imprisoned as a traitor. After being released, he managed to find exile in Bolivia and Chile, where he worked for five years. Still in Chile in 1967, he published his first book in Brazil: "Education as the Practice of Freedom."

In the 1960s, Freire developed his revolutionary educational approach based on conscientization and the liberation of the oppressed. His most famous work, "Pedagogy of the Oppressed," was published in 1968 and became a landmark in critical pedagogy. In this book, Freire argues that education should be a process of dialogue and engagement, empowering individuals to understand and transform their social reality (FREIRE, 2021).

In 1980, Paulo Freire returned to Brazil and continued to work in education, both in academic institutions and in popular education projects. He received numerous awards and recognitions for his work, and his legacy as a progressive educator and advocate for human rights persists to this day.

Paulo Freire passed away on May 2, 1997, in São Paulo, leaving a lasting legacy in the field of education and in the struggle for social justice. His pedagogical approach continues to

influence educators and inspire the pursuit of a more just and egalitarian society.

Paulo Freire advocated for an educational approach aimed at social transformation and conscientization. He believed that education should go beyond the mere transmission of knowledge and focus on raising students' awareness of their social reality (FREIRE, 2006). His approach was based on the belief that students learn by applying theory and practice in harmony with their reality.

4.2 Contributions of Paulo Freire in Environmental Education (EA)

Although Paulo Freire did not develop a specific theory of Environmental Education (EA), his ideas about conscientization, dialogue, participation, and praxis provide a solid foundation for addressing environmental issues within an educational context, contributing to a more critical, engaged, and sustainable formation of individuals (Loureiro, 2012).

Paulo Freire proposed education as the praxis of freedom, a teaching process that uses problematization to encourage students to suggest answers within the context of social inequalities. Where “[...] praxis, however, is the action and reflection of men upon the world to transform it, and it needs to be instigated in men, based on 'ethical responsibility'” (FREIRE, 1996, p.16).

Praxis, a central concept in Freire's work, refers to the integration of action and reflection. In Environmental Education, praxis involves encouraging students to take action and engage in concrete actions to promote sustainability and environmental conservation, while critically reflecting on the consequences of their actions. Thus, EA should mediate human activity, articulating theory and practice, promoting in individuals the need for transformations in their living environment to maintain balance between systems.

Currently recognized as the Patron of Brazilian Education, according to Law No. 12,612, enacted on April 13, 2012, Paulo Freire emphasized in his works that teaching is not limited to the mere transmission of knowledge. According to his theories, the act of teaching can be understood as transforming the student's naive curiosity into epistemological curiosity, as well as conducting a critical approach through the interaction between theory and practice, in a mutual process of teaching and learning.

Therefore, adopting a Freirean pedagogical approach implies seeking a critical confrontation and transformative practice in the face of reality models, rejecting the dehumanizing ideology that underestimates the historical, social, and unfinished essence of human beings (MARTINS AND ARAÚJO, 2021).

For Loureiro and Costa (2017), environmental issues and education are policies constructed with the participation of individuals in social life and the problematization of their reality, encouraging them to transform society as needed.

In light of this, for a better understanding of the teaching-learning process, it is essential to consider reality and demonstrate the importance of EA and environmental awareness in the region, the country, and the world. An example of this awareness, considering reality, is highlighting the benefits that the Amazon rainforest offers to the environment for those involved in this biome, as well as the biogeochemical cycles, large carbon storage, and biodiversity conservation (FEARNSIDE, 2005).

Freire emphasized the importance of relating learning to students' experiences and realities. In Environmental Education, this implies connecting environmental problems and issues to students' lives, making them more relevant and meaningful.

Education and environmental issues are areas that primarily build through the participation and coexistence of those involved, and if this construction happens through problematizing reality, it becomes more successful concerning the actions that will arise for the transformation of society (COSTA AND LOUREIRO, 2017).

Paulo Freire (2005) also emphasizes the importance of the entire school community's participation in the teaching and learning process, as well as for improving educational conditions.

The school plays a crucial role in building strong, collaborative, and democratic relationships with the community. Furthermore, we highlight the school's importance in forming critical citizens in society. Another fundamental aspect addressed is the establishment and effectiveness of the commitment to socio-environmental issues and Environmental Education.

As mentioned by Freire (2017), "if education cannot do everything, education can do something fundamental," meaning that although education cannot solve all problems, it plays a fundamental role in transforming society. From this perspective, the research emphasizes education's ability to contribute significantly to social progress, including in terms of environmental conception.

Freire's epistemology is based on a critical and transformative view of knowledge, challenging conventional approaches that conceive it as something passively transmitted to students, without space for questioning or critical reflections. On the contrary, Freire emphasizes the relevance of liberating education, where students play an active role in constructing knowledge, becoming critical and aware subjects (JAMBEIRO AND FERREIRA, 2021).

Analyzing Paulo Freire's work on Pedagogy of the Oppressed (FREIRE, 2003), it is possible to identify that the educational process should function critically and liberally for the transformation and defense of oppressed groups. Based on this assumption, regarding EA, it is practically impossible to think about the theme in a simplistic and mechanical way. Paulo Freire emphasized the importance of awakening critical awareness in individuals, leading them to understand their social reality and critically analyze power structures affecting the environment. In Environmental Education, this implies helping students understand the interactions between society, nature, and the environment, developing critical awareness of environmental issues and injustices.

This assumption was identified earlier by Loureiro (2004), who recognizes the importance of environmental education that incorporates critical notions that drive logical and practical change. Thus, the goal is to awaken critical awareness that reacts to the contradictions between unsustainability, environmental degradation, and systems of oppression. This means that environmental education must transcend these issues to stimulate conscious and critical reflection on the world around us. Paulo Freire aimed to contribute to the critical formation of the student to transform their reality through collective actions.

Considering Environmental Education as a social practice, it is necessary to break the trend of mere knowledge transmission, agreeing with Freire's ideas. In this context, Critical

Environmental Education arises as a practice that faces and combats the environmental crisis, recognizing its political nature. Not limited only to the knowledge of nature, natural, and ecological resources, Critical Environmental Education is emancipatory, citizen-oriented, critical, and reflective. It understands the complexity of totality, covering different dimensions united by the crisis we face, and contributes to reality transformation (LOUREIRO, 2011).

Critical Environmental Education is a branch of Environmental Education that seeks to analyze reality to have necessary arguments to question and improve inequality and environmental conflicts. It aims to develop autonomy and transform the economic pattern that intensifies nature degradation and exploits natural resources disorderly (LOUREIRO; LAYRARGUES, 2013, p. 64).

The critical EA branch emerged in the 1980s, originating from critical and emancipatory pedagogies (LOUREIRO, 2004). This approach has the fundamental characteristic of social practice that seeks to understand environmental issues as a whole, considering socio-environmental means.

Paulo Freire, in his works, describes that individuals, through interactions between the involved agents, seek ethically to build active citizenship and against social exclusion. In the environmental context, this is necessary through the intervention of the subjects' reality, seeking awareness of the importance of environmental education in the socio-environmental dimension. Freire (2009) argues that "we cannot reduce to an act of depositing ideas from one subject to another, nor can we simplify the exchange of ideas to be consumed by those who exchange them" (FREIRE, 2009, p. 91).

Freire (1996) describes that we are simultaneously subjects and objects of the environment that surrounds us, so we are determining agents of our transformation, and it is up to humans to take responsibility for their actions. Faced with environmental problems, there is an importance in developing in humans a critical analysis of reality (NETO, FEITOSA, and CERQUEIRA, 2019).

In order for Environmental Education (EA) not to be treated artificially, it is necessary to have a good planning of the didactic activities to be developed, preferably in an interdisciplinary manner, so that one activity complements the other (SOUZA, 2021). EA is an interdisciplinary action that considers the solution of local environmental problems, being a participatory activity that shapes citizenship through changes in attitudes and values, and raises awareness among the population about the relationship between humans/society/nature, aiming at improving the quality of life and ecological balance (GUIMARÃES, 2005).

Paulo Freire, in the face of the interdisciplinarity debate, supports Critical Environmental Education, arguing that EA should not be treated as an isolated discipline or only addressed in the natural sciences, as cited by Tozoni-Reis (2004). According to Freire (1993a), interdisciplinarity is a way of learning that involves the individual constructing knowledge from their relationship with the context, reality, and culture. This occurs through two important movements: the identification of problems in the situation we are in, revealing reality, and the organization of knowledge in an integrated way. Thus, we seek to express interdisciplinarity in learning.

Environmental Education is a process of permanent teaching and learning, aiming to instruct and raise awareness among students about environmental problems, emphasizing that

humans are part of the environment and depend on an ecologically balanced environment for their survival. Through education, people should acquire knowledge, experiences, and values to address present and future environmental problems (UNESCO, 1987).

According to Loureiro (2004, p.81), Environmental Education must be transformative, emphasizing education in a daily, collective, and permanent way, through which we act and reflect, transforming the local reality.

Paulo Freire engages in a debate rooted in contradiction, dialectics, and praxis in the educational field, criticizing capitalist society. He opposes the domination of the class and encourages the development of a pedagogy that overcomes capitalist power relations through awareness, collective construction, and dialogical action with the popular classes, the so-called oppressed (COSTA AND LOUREIRO, 2017). Leff (2002) also criticizes the dominant economic model, especially the paradigm of sustainable development, stating that it perpetuates the logic of exploitation and domination of nature and human communities.

In reference to Freire's perspective, the description of an economic model in which people are subordinate to the economy supports the conception of an oppressive system. The ability of ideology to make us passive sometimes leads us to passively accept that economic globalization is its own creation or an inevitable destiny, making it seem normal and how it should be, and not as a movement of dominated economic development, as is the case with all capitalist production, dictated by the interests of those in power (Freire, 2006, p. 121).

According to Leff (2002), the conventional economic model, based on continuous growth, always increasing profit and unrestrained consumption, is linked to environmental degradation and social inequality. The author argues that this approach is unsustainable in the long run, as natural resources are finite and social inequalities generate instability and conflicts.

The environmental crisis is considered a crisis of civilization and cannot be resolved only with isolated actions and without a critical and historical worldview. To understand environmental complexity, it is necessary to deconstruct and reconstruct our thinking, understanding its origins and the causes of the crisis. We must recognize the errors of history that led us to have false certainties about the world.

The dominant form of rationality perceives complexity only in its negative limits, in alienation and in the uncertainty of a world oriented by the economy, where the production process is uncontrollable and unsustainable (Leff, 2010, p. 16). Paulo Freire emphasizes the importance of critical awareness and reflection on power and oppression relationships in his work "Pedagogy of the Oppressed." This approach can be applied to how we relate to nature and the recognition of environmental injustices, in which certain groups are disproportionately affected by the negative impacts of environmental degradation.

Freire advocates for the importance of dialogue and the participation of active subjects in social transformation.

This perspective can be applied to the context of the environmental crisis, highlighting the need to involve communities and different social actors in the search for sustainable solutions and the defense of the environment. According to Capra (2002), effective environmental education should empower students to become responsible and active citizens, capable of making informed decisions and acting in favor of sustainability. The author also argues that education should promote a fundamental change in how we think and relate to the

natural environment, encouraging ecological awareness, empathy, and an ethic of care for the environment.

In this situation, we can observe that Freire's educational proposal is based on a liberating approach, grounded in dialogicity and problematization. In his works on the educational process, Freire reflects on the transformative action practices carried out by all subjects. This contributes in an essential way to those who wish to approach Environmental Education as a practice that seeks to effect changes in the world.

In the excerpt below, we have a visual representation.

(Figure 01) illustrating the main connections between Paulo Freire and Environmental Education (EA), following the description provided throughout the text.



Source: The authors, 2023.

The connection between Paulo Freire's approach and Critical Environmental Education is evident. Freire provided a pedagogical framework that valued critical thinking, active participation, and transformative action—elements that are essential to Environmental Education (EE). However, the effective integration of Freire's ideas into EE necessitates reflection on how to adapt his principles to the environmental context.

5 CONCLUSION

Paulo Freire's vision in environmental education is highly significant for discussions in the field. His critical and liberating pedagogical approach provides a broad theoretical framework for reflecting on environmental issues, fostering the development of conscious and sustainability-committed citizens.

By integrating Freire's principles, such as problematization, dialogue, and conscientization, into environmental education, it becomes possible to create a learning environment that stimulates active student participation, dialogue among diverse knowledge systems, and critical analysis of social and environmental relationships.

Freire's vision emphasizes the importance of considering students' concrete reality, cultural contexts, and life experiences in constructing knowledge about environmental education. This implies recognizing that environmental issues are intertwined with social, economic, and political matters, and that transforming relationships with the environment necessitates a transformation of power dynamics and societal structures.

The Freirean approach in environmental education encourages moving beyond mere information transmission and advocates for critical, reflective, and transformative learning. Furthermore, Freire's vision underscores the significance of praxis in the educational process.

In conclusion, I end this work with the following quote: "To follow me is not to follow me; it is to reinvent me" - Paulo Freire. Even though the author may not be categorized as an environmental education theorist, his works can be applied to the theme, offering reinterpretations in various ways.

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