Environmental Education as a transversal theme from the perspective of rural school teachers in Wanderlândia, State of Tocantins, Brazil

Educação Ambiental como tema transversal na concepção dos professores da escola do campo em Wanderlândia, estado do Tocantins, Brasil

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ABSTRACT
The present study aimed to analyze the concept of Environment Education (EE) as a transversal theme from the perspective of rural school teachers; understand the relationship between content and contextualization in the student’s daily life, establishing connections with meaningful learning in the vision of David Paul Ausubel and Paulo Freire; describe the spaces used by teachers and applied methodologies related to EE in the context of a rural school in Wanderlândia, state of Tocantins Brazil. We carried an exploratory qualitative research in the form of a case study, with the application of a questionnaire to teachers. The methodology was based on content analysis. The deficiency in physical and pedagogical structures are the main obstacles faced when implementing Environmental Education activities in rural schools.

Keywords: meaningful learning, environment, Paulo Freire.

RESUMO
O presente trabalho teve como objetivos analisar a concepção da Educação ambiental EE como tema transversal na perspetiva dos professores da escola do campo; compreender a relação entre conteúdo e contextualização no cotidiano do educando estabelecendo vínculos com a aprendizagem significativa na visão
de David Paul Ausubel e Paulo Freire; descrever quais os espaços utilizados pelos docentes e quais as metodologias aplicadas relacionadas a EA no contexto de uma escola do campo em Wanderlândia, estado do Tocantins, Brasil. O estudo caracteriza-se como uma pesquisa qualitativa exploratória realizada nos moldes de um estudo de caso, com aplicação de questionário aos professores. A metodologia baseou-se na análise de conteúdo. A deficiência de estruturas físicas e pedagógicas alicerçam os principais obstáculos enfrentados para a realização de atividades no âmbito da Educação Ambiental na realidade da escola do campo.

**Palavras-chave:** aprendizagem significativa, meio ambiente, Paulo Freire.

### 1 INTRODUCTION

#### 1.1 ENVIRONMENTAL EDUCATION IN THE RURAL SCHOOL EDUCATIONAL CONTEXT

Environmental Education (EE) is the set of processes through which the individual and the community build social values, knowledge, skills, behaviors, and competencies aimed at conservation (LINHARES; GEWANDSZNAJDER, 2007; SOUZA, 2014). When well designed and articulated, these attitudes enable maintaining an environment less impacted by human activities.

EE is the ability to understand political, economic, cultural, social, and ecological dimensions, contributing to minimizing environmental problems through proposals and solutions supported in all these dimensions (SILVA, 2018). Therefore, EE must consider the environment thoroughly, both in its natural and human-modified aspects, and this process must comprise all stages of formal and non-formal education (JACOBI, 2003).

According to Gohn (2006), formal education is developed in the school environment, in legally regulated institutions, following national guidelines and specific norms. In contrast, in non-formal education, educational processes occur in places that accompany the life story of groups and individuals, environments different from the school space where non-formal education socializes individuals, helping them to develop habits attuned with the values constituted in these spaces. Thus, we can conclude that non-formal education is associated with the emotions, feelings, and subjective aspects of a given group.
Freitas and Bernardes (2013) point out that the National Environmental Education Policy (PNEA) was implemented in Brazil in 1999, when an intense concern about environmental issues began in the country, enabling this educational practice to be instituted as mandatory at all education levels and considered an urgent and essential component. EE is recommended in formal education spaces through the legitimation of Law 9394/96 of the Brazilian National Education Guidelines and Bases, which defines that “the curricula of elementary and secondary education must include the principles of civil defense and protection and environmental education integrated to the mandatory contents” (BRASIL, 1996).

Recognizing these principles, the National Curricular Common Base (BNCC), when defining its competencies, states that education must establish values and stimulate actions that contribute to transforming society. Education should make society more humane, socially just, and focused on nature preservation, promoting socio-environmental awareness and responsible consumption at a local, regional, and global level, with an ethical positioning regarding the care of the planet (BRASIL, 2019).

In this sense, it should be clear that the PNEA recognizes the need for EE practices going beyond the school space, extending to the entire society. Therefore, it is necessary to recognize the importance of this law related to educational needs also in non-formal education spaces (FREITAS; BERNARDES, 2013).

The issues concerning environmental themes are more and more present in the daily life of our society and should also be present in educational processes. According to Loureiro, Layrargues, and Castro (2005), the humankind future depends on the relationship between existing natural resources and their use by society. Therefore, the environmental issue becomes a pressing matter before society.
In the search for knowledge that effectively contributes to rural schools, it is necessary to deepen the study and dialogue with teachers, ecologists, and social scientists who propose educational practices and curricular contents that meet the economic, environmental, and cultural peculiarities of these students.

What should be valued? How curricula contents should be presented so they favor social practices in rural areas? What are the possible interconnections between EE and rural education? Reflecting on questions like these is crucial to act more accordingly in rural schools (ALVES; MELO; SANTOS, 2017).

1.2 ENVIRONMENTAL EDUCATION AND THE PERCEPTION OF THE ENVIRONMENT

The current generation must rethink the society-nature relationship to face the current ecological crisis. This relationship is permeated with values that, even unconsciously, guide our actions. Hence, it is necessary to review and build new values and concepts about humankind, nature, and the world (BONOTTO; CARVALHO, 2016).

The Brazilian Constitution of 1988, in its article 225, describes the obligation of the Public Power and citizens in the defense, preservation, and conservation of the environment (BRASIL, 1988).

Art. 225: Everyone has the right to an ecologically balanced environment, an asset of common use of the people and essential to a healthy life quality, imposing on the Public Power and the community the duty to defend and preserve it for present and future generations (BRASIL, 1988).

Lopes and Zancul (2013) comment that EE emerged as a social practice that contributes to fighting environmental devastation as it seeks to use knowledge to build new values and attitudes consistent with the limits of environmental resources. In this way, the environmental dimension opposes the current perspective of the educational process, which inserts individuals into a homogeneous and contradictory social system. EE is also contrary to the educational process that dissociates knowledge from reality, which is technical, has no critical view of society, and standardizes students, disrespecting the uniqueness of each one (BISPO, 2016).
EE practice must be continuous in formal and non-formal education, aiming to prepare multiplying agents and make citizens aware of the activities that impact our environment. In addition, there must be an articulation between different areas of knowledge, greater theme visibility, and inclusion of individuals, culminating in a holistic environmental view (POMPERMAYER; COSTA; SCARELI-SANTOS, 2016).

The concern of including contextualized EE in the educational process has led several scientific leaders and government agencies to propose Environmental Education policies and actions. These policies and actions aim to turn the school into a center for the formation of citizens aware of the need to care for the environment, engaged in actions to preserve, value, and protect natural and cultural environments (BRABO et al., 2018).

The use of EE in pedagogical work contributes to cultural and social changes essential to maintaining life and the balance of the planet, enabling an important space for dialogue that leads to contemplation, argumentation, and suggestion of ideas (BISPO, 2016).

According to the National Environmental Education Policy (PNEA), established by Law # 9,795/99, Environmental Education refers to the processes through which the individual and the community build social values, knowledge, skills, attitudes, and competencies aimed at environmental conservation (BRASIL, 1999).

The concept of environment was deepened in CONAMA Resolution # 306 (BRASIL, 2002), which defined it as the set of physical, chemical, biological, social, cultural, and urban conditions, laws, influences, and interactions, which enables, houses, and rules life in all its forms. This definition places people and their contributions as environmental components, which are integral parts of this set (SOUZA, 2014).

Due to the scope and profound changes that the environmental theme requires, the EE project is difficult to accomplish and requires the involvement of all social actors in the process (SAUVÉ, 2005; POMPERMAYER; COSTA; SCARELI-SANTOS, 2016). Sauvé (2005) also ponders that, as the relationship with the
environment is “contextually and culturally determined,” it must be performed and apprehended through “intertwined and complementary” perceptions.

Krzysczak (2016, p. 08) defines environmental perception as “an awareness of the environment by humankind, that is, the act of perceiving the environment in which one is inserted, learning to protect and care for it.” The individual perception is related to the society-environment interaction, which affects the community of a given group that shares similar characteristics and behaviors. Also, according to this author, perception is a flexible activity that can show continuous adaptations to the environment where one is inserted. Personal motivation, emotions, values, goals, interests, and expectations influence how people perceive the environment.

In this sense, Sauvé (2005) emphasizes that to perform a relevant intervention in the environment, teachers must “take into account the multiple facets of this relationship.” The author also presents seven related and complementary representations of the environment, which guide different EE discourses and practices. They are: “environment as nature,” “environment as a resource,” “environment as a problem,” “environment as a place to live,” “environment as a biosphere,” “environment as a community project,” and “environment as a system.” This author adds that there are also other representations of the environment. Hence, the education process must consider the pluralism of environmental visions in a cumulative and integrated way.

According to Kondrat and Maciel (2013), the transformation of the current society into a sustainable society depends on an education that seeks the formation of citizenship, resulting in equal wealth and good living conditions for all generations.

1.3 MEANINGFUL LEARNING

Meaningful learning occurs when symbolically expressed ideas interact with what the learner already knows in a substantive and non-arbitrary way. Ausubel (2000) characterizes it as learning in which the student receives unfinished content and must figure out the missing bits before assimilating it.
David Paul Ausubel, who was considered the creator of the theory of meaningful learning, stated that the more one knows about something, the more one learns about it. For him, learning in a meaningful way means expanding and building new ideas to stimulate other related knowledge (MOREIRA, 2011).

In the school context, meaningful learning considers the student’s history and the teacher’s role in suggesting problem situations that favor student learning. However, for effective meaningful learning, the content addressed must be potentially revealing, and the student must be willing to relate the material in a conscious and non-arbitrary way (AUSUBEL, 2000).

According to Ausubel’s theory, learning consists of concepts related to cognitive structure, learning, meaningful learning, mechanical learning, and learning through discovery and reception. Furthermore, Ausubel understood learning as an extended cognitive structure, occurring through incorporating new ideas into it. Thus, depending on the relationship type between the existing knowledge and the new knowledge being acquired, learning can vary between its mechanical and meaningful form (MOREIRA, 2011).

Lima Neto (2016) comments that in mechanical learning, there is no logic between new and previous ideas in the cognition of the student, that is, the information is merely memorized and does not remain for a long time in the individual’s cognitive structure. On the other hand, meaningful learning allows the information to be stored long-term, enabling the individual to use it differently or even in a different context. Ausubel considered it the most suitable for academic teaching.

Ausubel named subsumer or anchor idea the prior knowledge specifically relevant to the new learning, which can be a symbol, a concept, a mental model, a proposition, or even an image. Subsumer is the name given to a specific knowledge present in the individual’s knowledge structure that gives meaning to the new knowledge presented to or discovered by the person. Attributing meaning to new knowledge depends on the existence of specifically relevant prior knowledge and the interaction with it (MOREIRA, 2011).

The subsumer can have a higher or lower cognitive stability and be more or less distinctive, that is, more or less elaborated in terms of
meaning. However, as the process is interactive, when the subsumer serves as an anchor idea for new knowledge, it changes itself, acquiring new meanings and corroborating previous meanings (MOREIRA, 2011, p. 14).

In this sense, meaningful learning is characterized by the interaction between prior knowledge and new knowledge in a non-arbitrary way. In this process, new knowledge acquires meaning for the subject, and prior knowledge acquires new meanings or higher cognitive stability.

The present study aimed to analyze the concept of Environment Education (EE) as a transversal theme from the perspective of rural school teachers; understand the relationship between content and contextualization in the student’s daily life, establishing connections with meaningful learning in the vision of David Paul Ausubel and Paulo Freire; describe the spaces used by teachers and applied methodologies related to EE in the context of a rural school in Wanderlândia, state of Tocantins Brazil.

2 METHODOLOGICAL PATH

Our methodology comprised exploratory qualitative research carried out along the lines of a case study that requires a deeper understanding of a social group. According to Yin (2001), the case study is an empirical investigation strategy comprising a comprehensive methodology that can include single or multiple case studies, which Martins (2006) also calls multicase.

We applied semi-structured questionnaires based on Arruda (2018) with modifications. Our subjects were ten teachers from Cândido Araújo Municipal School, 18 km from Wanderlândia, in the countryside of Tocantins State, located in Ponta do Asfalto village, alongside BR 153 Highway.

We applied the questionnaire to the participants aiming to know the concepts of EE as a transversal theme in the rural school context and verify the relationship between contextualization practices and the theory of meaningful learning defended by David Paul Ausubel and Paulo Freire (Table 1). The questionnaire also covered which spaces are used in the teachers’ methodology, how they are used to promote EE in rural schools, and the problems rural schools face when carrying out EE activities.
Table 1 - Questionnaire for teachers from Cândido Araújo school, in Wanderlândia, State of Tocantins, Brazil

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<tr>
<td>1.</td>
<td>What is the concept of Environmental Education (EE)?</td>
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<td>2.</td>
<td>How do you perceive rural education?</td>
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<td>3.</td>
<td>In which subjects do you work on the EE theme?</td>
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<td>4.</td>
<td>What spaces do you usually use to carry out EE practices?</td>
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<td>5.</td>
<td>What methods do you use to work on EE in your school context?</td>
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<td>6.</td>
<td>In your opinion, how can EE be related to the context of rural schools?</td>
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<td>7.</td>
<td>How is it possible to work on EE in a transdisciplinary way in the context of the rural school?</td>
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<td>8.</td>
<td>What obstacles are faced in carrying out EE activities in a rural school?</td>
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Source: The authors (2022).

We used the content analysis proposed by Bardin (2009) to analyze the data collected from questionnaire applied to rural school teachers. The questionnaire explored information relating EE to the rural school from the perspective of ten teachers working in a rural school in the municipality of Wanderlândia, state of Tocantins, Brazil. Research participants were named P1 to P10 to preserve their anonymity.

We used the record of information provided by the teachers’ answers for the content analysis of the answers. Then, we selected words and phrases that appeared more often in the speeches of the participants and used them to create data analysis categories.

3 RESULTS AND DISCUSSION

We identified conceptual categories integrating the dimension of EE perception from the perspective of the teachers from the rural school studied for the analysis and interpretation of the data collected from the questionnaire. The concepts were exemplified in the responses of teachers 1, 2, and 3, which represent the three categories of analysis established.

Regarding the concept of EA, the participants stated:

- It is an education focused on preserving and conserving the environment associated with sustainability (P1).
- It is an area dedicated to raising the awareness of individuals about environmental problems and how to fight them (P2).
- It is the creation of strategies aimed at transforming societal thinking about care for the environment (P3).
We sorted the participants' responses into three distinct categories: a) nature preservation and conservation; b) environmental awareness; c) transformation of societal thinking.

When asked about the EE concept, 70% of interviewees answered that it is the process of preserving or conserving nature, 20% said it is related to environmental awareness, and 10% believe that EE is a process of transforming societal thinking. Reigota (2017) states that EE has been conceptualized over time from the conception of the term “environment,” but the scientific community reached no consensus about its definition. Thus, it can be considered a social representation.

The meaning of EE as a process that aims at the preservation and conservation of natural resources, as well as the awareness of problems and possible solutions regarding nature degradation, evidences a representation of naturalistic thinking. It presents in its context the preservation of the environment as a necessary resource for survival, which Morales (2009) characterizes as a traditional concept related to naturalistic and conservationist aspects, emphasizing the environmental management model.

On the other hand, the EE as a process of transforming societal thinking is supported by the critical-reflexive line that approaches a critical and emancipatory view characterized by Paulo Freire’s thought and the principles of critical theory. This current of thought is based on action learning, through the action, and for the action. The reflexive practice is allied to this process as “this practice is the transformative social activity, which implies the action and the reflection of human beings about the world and how to transform it” (FREIRE, 1997, p. 58). In this way, education plays a crucial role in the process of social awareness, in which the individual starts thinking about reality, assuming the role of a transforming agent of his own history.

When questioned about how they perceive rural education, the teachers established different ideas, exemplified in the speech of three of them.

It is a public policy that ensures the educational rights of the rural population (P3).

It can be seen as the valuation of the rural environment (P4).
It is the type of education that contextualizes the content with the daily life experienced by the student (P5).

Based on the answers, we established three units of meaning: a) public policy, b) valuation of the countryside, and c) contextualization of content/daily life. The results showed that 60% of the interviewees perceive rural education as a public policy that aims to ensure the educational rights of the rural population, 30% believe it is a way of valuing the countryside, and 10% say it is an education that contextualizes the syllabus with the daily life of the students residing in the rural area. It is possible to observe that rural education has gained space over time in the Brazilian educational scenario. However, there is still a long way to go before it is possible to state that the Brazilian rural community has the right to education ensured.

Santos (2018) emphasizes that the lack of specific objectivity regarding rural education in the constitution of official guiding documents, such as the LDB, the PCNs, and the PNE, demonstrate the disadvantage of rural education in relation to urban education, characterizing a cumbersome public policy and actions that distance theory from practice.

It is paramount that rural communities have access to the same education quality provided to the urban population as ensured by law. However, the literature shows it does not happen in rural reality; hence, a public effort is necessary to revert the situation (ROCHA et al., 2020).

The fundamental characteristic of the rural school is the identity of traditional peoples who live in rural areas and carry a whole practical apparatus of experiences, formed through the interaction with the environment where they are inserted. Their habits and practices passed on over generations originate a history marked by the struggle for social equality and educational rights.

According to Wolfran (2018), the rural population’s cultural relationships and forms of work are not only directly related to nature but also modified by the action of the environment over time. Therefore, maintaining the relationship with the environment and the cultivation techniques used in the past is crucial for preserving and valuing their knowledge.
When asked in which subjects teachers work with EE, 80% said that the EE theme is included in all subjects as it is interdisciplinary, and 20% reported teaching classes on EE in specific subjects such as science, geography, and agricultural techniques, as exemplified in the speeches of teachers 6 and 7.

It is addressed in all subjects due to its interdisciplinarity (P6).
Science, geography, and agricultural techniques (P7).

EE must be implemented through educational, permanent, and interdisciplinary practices at all school stages and should not be adopted as a specific curricular component. According to the National Curriculum Guidelines, the introduction of knowledge related to EE in the basic education curriculum must occur through the transversality of themes related to environmental sustainability (BRASIL, 2012).

Interdisciplinarity can enrich the meaning of teaching, through the integration of different areas of knowledge, in favor of the development of the same theme; in a complex way, it can break the division of disciplines, contributing to the formation of critical and reflective citizens (FREITAS; BERNARDES, 2013 p. 05).

The relationship of the rural school with the interdisciplinary process occurs through the integration of contents in different areas of knowledge and their exploration, aiming at the understanding of new knowledge.

Sato (2004) states that for the interdisciplinarity process to happen, teachers must understand the contents of the subjects they teach to identify their importance within EE. The environment cannot be considered a specific object isolated from the subject but must be worked on in the dimension that sustains all activities and drives physical, biological, social, and cultural aspects of humanity. Thus, the plurality of factors interconnected in the EE processes shows the teacher in a position of vulnerability in the face of the deficiency of formative, material, and collective support from the school community (SANTOS-JÚNIOR; FISCHER, 2020).
When asked which spaces are used to carry out EE practices, the interviewees cited at least three different spaces, as indicated by teachers 8, 9, and 10.

School vegetable garden, school garden, springs of our rivers (P8).

In the natural environments of the region, the compost bin, and the classroom (P9).

In the classroom, the garden, and the school vegetable garden (P10).

We established the following categories based on the analysis of the answers: a) garden, b) vegetable garden, c) compost bin, d) natural environment, e) streams, f) springs, and g) classroom. In decreasing order of citations by the interviewees, we observed that 25% of the answers corresponded to the classroom, followed by the school garden with 21%. The school vegetable garden and natural environments showed a frequency of 17% each, streams and springs were cited in 8% of responses, and compost bins in only 4%.

Although teachers use several spaces to teach their classes, the environment with the highest frequency of use among the teachers participating in the research is still the classroom. This fact demonstrates the lack of active methods that explore the different opportunities offered within the scope of EE through the environment in which the rural school is inserted.

Oliveira, Selmer, and Antiqueira (2017) state that methodologies used in environments beyond the classroom can offer significant results for the teacher and student, even though they are considered a challenging practice. However, it is imperative to look for different alternatives and encourage teachers to include them in teaching plans, aiming to better use the contents, modify, and improve the student’s critical thinking and the teacher’s practice.

Regarding the methodologies used to work on EE, the teachers’ view appears in the speech of interviewees 1, 3, and 7:

Taking the students to the schoolyard (P1).

Using recyclable materials (P3).
Taking students to natural environments to experience tours and ecological trails (P5). Reading texts aloud on the topic (P7).

The results showed that 30% of the interviewees taught theoretical classes in the classroom with readings related to the theme, 20% carried out activities involving recycling, 20% taught practical classes in the school garden, 20% carried out practices of planting seedlings and observing different soil types, and 10% took tours and ecological trails.

It is possible to observe that, among the methodologies used by teachers, the greatest representativeness (30%) was attributed to theoretical classes in the classroom. This information corroborates the results of the previous question about the spaces used for the EE practice, which showed that most answers (25%) cited the classroom as the place where didactic activities related to the theme occur.

This fact highlights the deficiencies in the strategic methodologies of the rural school when using environmental resources of non-formal spaces in their region to carry out EE practices. Lopes and Pinto (2017) emphasize that working on EE in field activities broadens students’ perception and develops logical scientific thinking, as it contacts the object of study addressed in the classroom.

Teaching interdisciplinary classes in non-formal learning spaces allows the teacher to work on the content from different perspectives, facilitating the student’s understanding due to the casual character of the class. It also allows more interaction between students and the environment where they are inserted (MACHADO, 2017).

Regarding the relationship with EE in the rural school context, teachers’ perspective is represented in the responses of participants 2, 8, and 10.

It is an interaction that can be developed in the natural reality of the environment in which one lives (P2).

It is the process of caring for and valuing the environment (P8).

It can be a relationship between two parties in which one needs the other to survive (P10).
We created three categories of perception based on teachers’ answers: a) contextualization with the environment, b) valuation of the environment, and c) mutual survival relationship. We found that 80% of the participants believe that this is a relationship of contextualization with the environment where they are inserted, 10% claim to be a relationship of valuing the environment, and the remaining 10% understand it as a relationship of mutual survival. This result shows that most teachers (80%) perceive the EE as closely related to the rural school context, realizing the potential of contextualizing the rural environment for meaningful and critical learning.

The rural school has the influence of the environment where it is inserted in its historical and institutional core. It is favored by the landscape of the rural environment and its historical, cultural, and geographical characteristics. The teacher can contextualize his or her classes through experiences daily lived by the students, such as land cultivation practices, the study of soil types, the varieties of cultivated plant species, the teaching of botany, pest control, and the study of ecological interactions.

According to Santos and Sousa (2018), the several social and environmental dimensions must be understood through the relationship between the natural and social environment, mediated by cultural and traditional knowledge in communion with scientific knowledge. The sense of belonging to the environment where one is inserted must be reestablished, favoring the awareness and decision-making related to the socio-environmental reality, observing its possibilities and limits.

Regarding how to work on EE in a transdisciplinary way in the rural school context, we obtained the following answers from teachers:

- Associating the contents to the student’s daily life (P1).
- Involving all disciplines in a contextualized way (P2).
- Through studies and projects (P7).

The results show that 50% of the participants believe that working on EE in a transdisciplinary way, in the context of the rural school, requires integration between theoretical content and the reality experienced by the student, 30%
claim it should require a contextualized involvement of all disciplines, and 20% believe it should be based on studies and projects.

The EE can be effective through transdisciplinary practice, meeting daily environmental concerns, and contributing to easing the challenge of reestablishing the integration between society and nature (AIRES; SUANNO, 2017). Arruda (2018) states that interdisciplinarity through methodological strategies, such as lectures, workshops, educational activities, and projects, contributes positively and significantly to the teaching-learning process.

The answers regarding the obstacles faced when carrying out activities related to EE in the rural school are represented in the speech of teachers 3, 5, and 9:

Lack of teaching materials, trained teachers, and transport (P3).
Lack of teaching material and transport (P5).
Lack of trained professionals and technological resources (P9).

The lack of teaching materials was mentioned in 39% of the answers, the lack of suitable transport in 31%, and both the scarcity of technological resources and the lack of teacher’s professional training appeared in 15% of the answers.

Souza (2008) states that the urgency of rural education is largely characterized by lacking schools, teachers with consistent training to work in schools located in the settlements, agricultural technicians, and even the lack of teachers.

The literature shows that the rural school has been changing over time, but several problems still hinder the educational development of the population that uses it. The lack of physical and pedagogical structures is a striking feature in most schools located in the rural area, evidencing the neglect of the public power in the physical structuring of these schools. The deficiency in the structure of pedagogical, material and the lack of professional and continuous training of rural school teachers are also challenges to be faced.

According to Pinheiro (2020), rural students are frustrated due to the lack of training of most teachers and the lack of physical and pedagogical structure of rural schools combined with multigrade teaching, which cannot provide quality
education due to the precarious conditions experienced by teachers and students who share the same space with different classes.

4 FINAL CONSIDERATIONS

The analysis and interpretation of the answers to the questionnaire showed that the teachers from the rural school still have a traditional and conservationist view of EE, relating it exclusively to the processes of nature conservation and preservation, which have been inserted by society over time due to the constant practice of a highly theoretical discourse.

In this way, teachers of the Cândido Araújo School perceive rural education as a public policy aimed at valuing the rural environment. They use the contextualization process to insert program contents into the reality experienced by rural peoples, reflecting on the teaching practice of effective meaningful learning. This process appears in the theory of meaningful learning defended by David Paul Ausubel. It is also characterized by the pedagogy of freedom, which considers the empirical knowledge experienced by students as a starting point for democratic, effective, and equality learning, defended by Paulo Freire.

In this context, rural school teachers believe that transdisciplinarity in EE can be achieved through the association between the theory of the school program contents and the daily life of students, involving all subjects in a contextualized way through studies and educational pedagogical projects.

Regarding the spaces used by teachers to carry out EE practices, gardens stood out among non-formal spaces. However, 25% of interviewees cited the classroom as the most used environment in EE practices. Thus, the non-formal spaces around the rural school are still poorly explored in the context of EE.

We found a similar result regarding the use of methodologies for teaching EE, which teachers characterized as practical classes in the school garden, activities of material reuse and recycling, practices of planting and soil types, and tours and ecological trails. However, the theoretical classes in the classroom represented most methodologies (30%) mentioned in the answers.

Hence, there is a need for a curriculum explicitly aimed at rural schools that prioritizes the plurality of sociocultural knowledge, values the geographic
location, and understands the needs of traditional rural peoples and communities.

Implementing effective public policies is necessary to ensure a quality education for the rural population. Hence, it is crucial to invest in physical structure, pedagogical and technological material, and specific and continuous training for teachers. It is also crucial to respect the countryside and its people and the transformation of prejudiced thinking that often perceive the rural school as the backyard of the urban school.

It is important to highlight that urban and rural environments have different characteristics, so the practices and methodologies necessary for a quality education must be specific, targeted, and contextualized according to the reality experienced by each environment.
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