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ENVIRONMENTAL EDUCATION AND SOCIAL REPRESENTATIONS ABOUT WATER: WHAT DO STUDENTS AT ELEMENTARY SCHOOLS IN THE MUNICIPALITY OF VARGEM ALTA – ES SAY?

EDUCAÇÃO AMBIENTAL E REPRESENTAÇÕES SOCIAIS SOBRE A ÁGUA: QUE DIZEM OS ALUNOS DAS ESCOLAS DE ENSINO FUNDAMENTAL DO MUNICÍPIO DE VARGEM ALTA – ES?

EDUCACIÓN AMBIENTAL Y REPRESENTACIONES SOCIALES SOBRE EL AGUA: ¿QUÉ DICEN LOS ESTUDIANTES DE LAS ESCUELAS PRIMARIAS DEL MUNICIPIO DE VARGEM ALTA – ES?

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ABSTRACT

This study aimed to analyze the social representations of water among elementary school students from urban and rural public schools in Vargem Alta, Espírito Santo, Brazil, by connecting the Theory of Social Representations (TSR) with Environmental Education. This qualitative research, with an exploratory and descriptive character, used two data collection instruments: a questionnaire applied to 74 students and semi-structured interviews conducted with 20 participants from one rural and one urban school. Questionnaire data were tabulated in Excel, and the interviews were processed using the IRaMuTeQ software. Students' interpretations of environmental degradation and water resource management revealed that urban students associate pollution with the lack of sanitation and improper waste disposal, while rural students emphasize predatory agricultural practices and deforestation. This division reinforces that social representations are not homogeneous but are shaped by the territorial and social context of the participants.
Keywords: Environmental Education. Social Representations. Water.

RESUMO

Objetivou-se analisar as representações sociais da água entre alunos do Ensino Fundamental de escolas públicas urbanas e rurais de Vargem Alta- ES, Brasil, articulando a Teoria das Representações Sociais (TRS) com a Educação Ambiental. A pesquisa qualitativa, de caráter exploratório e descritivo, utilizou como instrumentos de coleta de dados: um questionário aplicado em 74 alunos e entrevista semiestruturada, aplicada em 20 participantes, de duas escolas: rural e urbana. Os dados dos questionários foram tabulados no Excel e as entrevistas, foram processados no software IRaMuTeQ. As interpretações dos estudantes sobre a degradação ambiental e a gestão dos recursos hídricos revelam que, enquanto os alunos urbanos relacionam a poluição à falta de saneamento e ao descarte inadequado de resíduos, os alunos rurais enfatizam as práticas agrícolas predatórias e o desmatamento. Essa divisão reforça que as representações sociais não são homogêneas, mas marcadas pelo contexto territorial e social dos sujeitos.
Palavras-chave: Água. Educação Ambiental. Representações Sociais.

RESUMEN

El objetivo de este estudio fue analizar las representaciones sociales del agua entre estudiantes de primaria de escuelas públicas urbanas y rurales de Vargem Alta - ES, Brasil, articulando la Teoría de las Representaciones Sociales (TRS) con la Educación Ambiental. La investigación cualitativa, de naturaleza exploratoria y descriptiva, utilizó como instrumentos de recolección de datos: un cuestionario aplicado a 74 estudiantes y una entrevista semiestructurada, aplicada a 20 participantes, de dos escuelas rurales y urbanas. Los datos de los cuestionarios se tabularon en Excel y las entrevistas se procesaron en el software IRaMuTeQ. Las interpretaciones de los estudiantes sobre la degradación ambiental y la gestión de los recursos hídricos revelan que, mientras que los estudiantes urbanos relacionan la contaminación con la falta de saneamiento y la eliminación inadecuada de residuos, los estudiantes rurales enfatizan las prácticas agrícolas depredadoras y la deforestación. Esta división refuerza que las representaciones sociales no son homogéneas, sino marcadas por el contexto territorial y social de los sujetos.
Palabras clave: Agua. Educación Ambiental. Representaciones Sociales.

INTRODUCTION

Water is a natural resource essential for sustaining the life of all living beings and maintaining the planet's environmental balance. It has a singular importance that goes beyond its physical and chemical properties, becoming the object of social representations by individuals and groups. These social representations influence people's attitudes and behaviors regarding the use and conservation of water, shaping daily practices, water resource management policies, and Environmental Education strategies (Vittorazzi; Gouveia; Silva, 2020). In a context where water scarcity is becoming an increasingly evident reality, understanding these representations is crucial for promoting more sustainable and conscious strategies for the use and management of this resource.

As with other types of social representations, perceptions of water are deeply rooted in the traditions of different peoples across diverse sociocultural contexts. In some cultures, water is seen as sacred, while in others it is mainly regarded as a commodity or an economic resource (Polli; Kuhnen, 2013). These varied understandings can influence how communities respond to water-related challenges, such as pollution, watershed management, and climate change (Jacobi; Grandisoli, 2017).

As Jodelet (2001, p. 17) explains, social representations serve a practical function, as they "[...] guide the collective way of naming and defining all aspects of everyday reality". They originate from social groups that share a similar worldview and associated patterns of behavior. Furthermore, social representations evolve as both social and individual interactions change.

In a scenario marked by water crises and growing concerns about sustainability in its multiple dimensions (social, environmental, economic, political, and cultural), it becomes fundamental to understanding the social representations and the interactions of different social groups concerning water. Polli and Camargo (2015) reinforce the perspective that social representations of water reflect not only an understanding of its vital role in sustaining life but also reveal how different cultures and societies perceive, value, and interact with this indispensable resource.

In this sense, the study presented in this article is situated within the field of Environmental Education through two key areas of dialogue: critical understanding of the use of natural resources and ecological balance, especially in rural areas (Santos; Cândido, 2023); and the importance of Environmental Education in the formation of conscious citizens who are capable of acting locally and thinking globally, promoting practical solutions to critical environmental issues (Colagrande; Farias, 2021).

This research aimed to investigate the social representations of water among students in the later years of primary education from public schools in Vargem Alta, in the state of Espírito Santo,

Brazil. To achieve this, it was necessary to identify the challenges related to water scarcity within the community, as well as to understand the students' conceptions and practices regarding water conservation. Based on the Theory of Social Representations developed by Moscovici (1961) and expanded by Jodelet (2009), the study examined how these representations are shaped by social and cultural interactions, highlighting the importance of conscious water resource management. By investigating the student's social representations, the study contributes to the development of Environmental Education within the school context, providing guidelines for school programs and projects that aim to promote interdisciplinarity, environmental awareness, and water conservation.

1 METHOD

This qualitative research (Bauer; Gaskell; Allum, 2002), conducted during the first semester of 2024, was grounded in the psychosocial studies of Denise Jodelet's sociogenetic approach within the framework of Social Representations Theory (SRT). Accordingly, the psychosocial theoretical-methodological perspective adopted aimed to highlight the historical and cultural elements, as well as the tensions and convergences (Jodelet, 2017), that influence the social representations of water among the students surveyed.

The research was conducted in the municipality of Vargem Alta, Espírito Santo, Brazil, which is characterized by its extensive hydrographic network, including numerous rivers, lakes, watersheds, and aquifer recharge areas. These features play a fundamental role in supplying water for human consumption, agriculture, and recreational activities in the region. A detailed understanding of these characteristics is essential for analyzing the social representations of water among students from both rural and urban schools in the area.

According to the latest census (2022), Vargem Alta had approximately 19,563 inhabitants (IBGE, 2022) and faced ongoing challenges in basic sanitation and urbanization, with only 26.3% of households having access to adequate sanitation services (IBGE, 2010).

In the educational field, IBGE data indicate that the municipality achieved a 98.3% schooling rate among children aged 6 to 14 (IBGE, 2010). Moreover, in the 2023 Basic Education Development Index (IDEB), Vargem Alta scored 6.1 for the early years and 5.3 for the final years of elementary education.

The study was carried out in two schools within the municipality. One was a state school located in an urban area, with approximately 367 students, and the other was a municipal school with about 222 students, predominantly from rural communities. This contrast provided an important basis for comparative analyses between the urban and rural contexts examined in this study.

Data collection was conducted in two stages. In the first stage, a sociodemographic questionnaire was administered to better characterize and understand the investigated group. In the second stage, a semi-structured interview script was used, developed based on a literature review on SRT and Environmental Education (Polli; Camargo, 2013; Polli; Camargo, 2015; Monteiro; Monteiro, 2017; Monteiro et al., 2020), as well as previous studies (Rosa; Santos, 2017; Santos; Souza, 2021).

To participate in the research, students had to be between 14 and 16 years old, reside in the study area, and be enrolled in the final years of elementary education. A total of 74 students (40 from the urban school and 34 from the rural school) voluntarily completed the questionnaire, and 20 students (10 from each school) who had participated in the first stage also took part in the interview, again voluntarily.

The questionnaire provided a comprehensive profile of the students. The identification items included information such as age, school grade, gender, and self-declared ethnic-racial background, allowing for a broad understanding of the diversity within the school environment. Additionally, data on means of transportation and travel time to school, as well as pre- and post-school activities, revealed important aspects of students' daily routines, including how they spent their free time. The family profile section addressed household composition, number of siblings, guardians' education levels, and monthly family income. These data were crucial for understanding the students' socioeconomic contexts and their potential influence on school performance and experience. Regarding household characteristics, information was collected on place of residence, type and predominant building materials of the home, and property ownership status, to provide an overview of the students' living conditions. The infrastructure of their residential areas was examined through questions about water supply, waste collection, street paving, and the availability of public services in the community. These elements were essential for understanding the students' urban or rural living contexts and how these conditions could affect both their well-being and access to education.

The interview consisted of seventeen (17) predefined questions, conducted individually with the students, exploring various aspects of their relationship with water. Topics addressed included its significance, daily use, awareness of its origin and treatment, and understanding of community practices that affect local water sources. Specific themes such as household water consumption, the origin and treatment of sewage, familiarity with local springs and rivers and their conservation status were also covered. The interview encouraged students to reflect on practical measures to preserve and improve water quality within their community.

Descriptively, the main characteristics of the student groups investigated are summarized in

Table 1:

Table 1- Summary table showing the characteristics of students from the urban school (n=40) and the rural school (n=34) in Vargem Alta-ES

Categories	Urban School (%)	Rural School (%)
Gender		
Male	60%	52.9%
Female	40%	47.1%
Ethnic-Racial Self-Declaration		
Whites	32.5%	32.3%
Mixed Race	40%	52.9%
Blacks	25%	11.8%
Preferred not to declare	2.5%	2.9%
Means of Transport to School		
School transport (< 3 km)	40%	38.2%
Own transport	40%	52.9%
On foot	17.5%	40%
Other	2.5%	0%
Travel Time to School		
Less than 30 minutes	87.5%	52.9%
Between 30 minutes and one hour	12.5%	47.1%
Before/After School Routine		
Before/After School Routine		
Household chores	37.5%	32.3%
Working with parents/guardians	5%	52.9%
Studies/homework	100%	11.8%
Leisure	32.5%	2.9%
Others	2.5%	0%
Internet Access		
Mobile internet access	100%	100%
Internet access via computer	77.5%	23.5%
Social media access via mobile phone	100%	100%
Number of Siblings		
None	17.5%	17.6%
One	20%	32.3%
Two	37.5%	23.5%
Three	17.5%	14.6%
Four or more	7.5%	5.9%
Guardians' Educational Level		
Incomplete elementary school	5%	11.7%
Complete elementary	12.5%	32.3%
High School	42.5%	41.1%
Completed higher education	7.5%	2.9%
Preferred not to declare	35%	14.6%
Family Income		

10 to 20 minimum wages	0%	2.9%
2 to 4 minimum wages	15%	23.5%
Does not know	62.5%	44.1%
Preferred not to declare	22.5%	29.4%

Source: Prepared by the authors, 2025.

The Excel program was used to organize and process the sociodemographic data, while the free software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires (IRaMuTeQ, version 2014) was used to analyze the interview data, through the application of Descending Hierarchical Classification (DHC).

The analysis followed the model proposed by Leblanc (2015), examining the lexical content of each class identified in the dendrogram and contextualizing it within the participants' statements, leading to the emergence of categories and subcategories.

Finally, the data were triangulated (Apostolidis, 2006), integrating the empirical findings with theoretical frameworks from Social Representations Theory (SRT) and Environmental Education, providing an accurate understanding of the social representations of water among elementary school students in public schools in Vargem Alta, ES.

2 RESULTS AND DISCUSSIONS

The comparative analysis of student profiles from urban and rural schools, based on the questionnaire data, reveals differences and similarities that impact both the educational context and students' development. In urban schools, there is a predominance of male students and greater ethnic diversity. School transportation is widely used, with most students experiencing short commutes, which tends to favor academic performance. Daily routines are balanced between study and household chores, and the intensive use of the Internet, mainly via mobile phones, highlights students' technological dependence.

In contrast, in rural schools, the gender distribution is more balanced, though with a predominance of mixed-race students. School transportation is also common, with most students traveling short distances. However, a small portion faces long commutes, which can negatively affect school attendance. Rural students' routines are characterized by study and leisure, and while all students have Internet access, computer use is notably less frequent.

In both contexts, parental presence is high, and most students have at least one or two siblings. Regarding the educational level of guardians, there are similarities between contexts, with a predominance of parents who completed high school, suggesting a moderate level of educational capital, which is important for supporting their children's academic success. However, it is concerning

that many students are unaware of their parents' education level, which may reflect a lack of communication or undervaluation of this aspect. Regarding family income, many students, both in urban and rural areas, reported not knowing their household income, and those who did report it mostly indicated modest earnings.

The analysis of housing characteristics among students from urban and rural school's highlights differences that influence both well-being and academic performance. In urban areas, most students live in owner-occupied, well-built masonry houses, reflecting greater residential stability and better access to urban infrastructure.

The near universality of such housing conditions in urban areas suggests a context with improved access to public services and resources. In rural areas, while most students also live in owner-occupied masonry houses, there is greater diversity in housing types, including farms and smallholdings. Non-cemented masonry houses and greater reliance on rented or loaned accommodations point to additional challenges related to housing stability and access to resources, which can negatively affect students' well-being and academic outcomes.

In both contexts, the stability provided by homeownership is a positive factor. However, differences in housing conditions and infrastructure access underscore the need for public policies tailored to the specificities of each scenario. Ensuring adequate housing for all students is essential for promoting equitable and quality education.

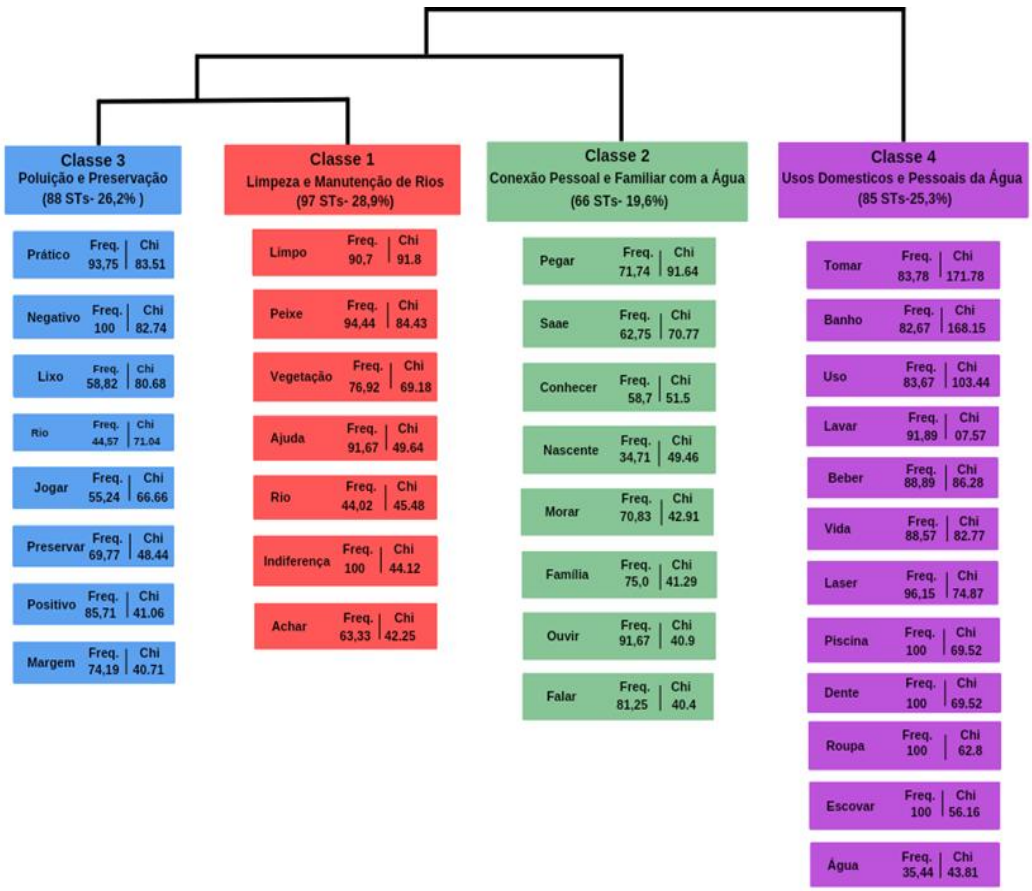
The comparative analysis of infrastructure in urban and rural areas reveals significant differences that are likely to impact students' quality of life and academic performance. In urban areas, most students have regular access to treated water, daily garbage collection, and paved streets, which facilitate transportation and contribute to a more favorable learning environment. These services are essential to ensuring basic health, safety, and well-being.

In rural areas, although a significant number of students also have access to treated water, there is greater reliance on alternative sources, such as wells and springs, which can lead to variations in the quality and availability of water resources. Garbage collection is less regular, and street paving is less common, making school access difficult, especially during adverse weather conditions such as rainy periods.

Following the processing of interview data using IRaMuTeQ software, four thematic classes emerged, comprising 20 categories across 424 textual segments (TSs), representing 79.2% of the corpus and corresponding to 1.356 words forms. In total, 14,719 words occurrences, 822 lemmas, 682 active forms, and 132 supplementary forms were identified.

Descriptively, as shown in Figure 1 below, analyzing the dendrogram from right to left, the first partition axis isolates Class 4, labeled "Domestic and Personal Uses of Water" (25.3%), indicating a greater statistical distance from the other classes. On the opposite side, a second partition axis emerges, revealing Class 2 – "Personal and Family Connection with Water" (19.6%), followed by a further split that gives rise to Class 1 – "Cleaning and Maintenance of Rivers" (28.9%), and Class 3, titled "Pollution and Preservation" (26.2%), which show greater statistical proximity to each other.

Figure 1. Dendrogram: Grouping of Textual Segments into Classes (Urban School Students/Rural School Students)



Source: Developed by the authors using IRaMuTeQ software (Version 2014).

In Class 4 (25.3%) – "Domestic and Personal Uses of Water" – the analysis concentrated on discursive excerpts concerning the daily use of water, covering aspects such as personal hygiene, consumption, leisure, sustainability, and survival.

The first set of statements in this class demonstrates that students recognize water as an essential resource for both human and animal life, emphasizing its vital role. Furthermore, water is

perceived as a practical and everyday element, serving purposes ranging from basic activities like hygiene and cooking to more complex processes, such as electricity generation. These representational elements are illustrated in the following excerpts:

> [...] For me, water is indispensable for survival because without it I can't do anything. We don't take showers, we don't cook, we don't wash clothes. So, water is fundamental. (Urban school participant 04)[4]

> "[...] Water is essential for hygiene and everything. I use water for drinking and bathing, and also for washing clothes, cleaning the house, and cooking. The water comes from springs, and we use a septic tank." (Rural school participant 02)

In addition to its practical uses, the participants emphasize the recreational dimension of water, associating it with leisure and enjoyment. This observation corroborates previous studies (Augusto et al., 2012; Polli & Camargo, 2015), which indicate that water carries symbolic meanings that go beyond its utilitarian function, serving as a cultural and experiential element for the group. For the students, water is associated with entertainment, relaxation, and moments of recreation, as exemplified in the following account: "[...] When I think of leisure involving water, I remember summer, playing with a hose, swimming pools, and the Concórdia waterfall." (Rural school participant 04).

Finally, Class 4 also highlights students' perceptions regarding water supply systems. While urban school students describe water as a metered service provided by the Autonomous Water and Sewage Service (SAAE), managed by the State, rural school students report greater reliance on artesian wells and natural springs, with no State mediation in the control or distribution of this resource. These contrasts are reflected in the following accounts:

> [...] Most of the houses in my neighborhood have water supplied by SAAE, but I still hear about people who depend on springs, which are essential for community sustainability. (Urban school participant 05).

> [...] In our community, we still heavily rely on springs for our daily water supply. Without them, we wouldn't be able to maintain our agricultural and domestic activities. (Rural school participant 10).

In summary, the data recorded in this class demonstrate that, for the group investigated, water is socially represented both as a vital and everyday resource and as an element of leisure and a

[4] The excerpts from the interviews cited in this article were freely translated by the authors and will be presented prominently, standardized in italics as long direct quotations.

good with unequal access, depending on the socioeconomic and territorial context. This finding suggests potential disjunctions in the social representations of water within the investigation group.

In Class 2 (19.6%), titled "Personal and Family Connection with Water," narrative excerpts are grouped that reveal social representations concerning the community's and individuals' everyday relationship with water, the role of education and environmental awareness in preserving water resources, and representational elements linked to infrastructure and sanitation.

For the group, water occupies a central place in community life, both in urban and rural contexts. However, for students from rural areas, water is often associated with agricultural work, being essential for subsistence and, at the same time, a scarce and contested resource, disputed both by the community and the SAAE. These representational elements are evident in the following statements:

> [...] My grandparents and parents used to say that, in the past, everyone collected water from the spring, but over time, as the number of people in the community increased, they started receiving water from SAAE because the spring water was no longer sufficient for all families. (Urban school participant 02)
>
> [...] I use water for household chores, for cooking, and for farming. The water comes from a spring, and the sewage flows into the stream. Yes, people in my community are not supplied with water from SAAE. (Rural school participant 13)

Beyond daily usage, the group emphasizes the importance of education and environmental awareness in managing water resources. For the participants, river and sea pollution results from unchecked human activity, which degrades natural resources without considering their importance for future generations. Furthermore, the students criticize the impact of urbanization on water quality, pointing out that despite the image of progress associated with cities, these areas end up polluting rivers and using water excessively. These representations are illustrated in the following accounts:

> "[...] The rivers in our municipality are quite polluted. Some streams remain clean but become degraded as they approach the community. (Rural school participant 08)
>
> [...] The sewage from my house goes into a septic tank, but I know many people in my neighborhood who still discharge it into the river. I don't know anyone who draws water directly from springs or rivers. (Urban school participant 01)
>
> [...] In my community, many people still rely on spring water. Springs are essential, especially because many do not have access to the municipal water service. (Rural school participant 13)

An aspect that stands out in this class is the way students link water to family memories, especially the experiences of parents and grandparents. The "water of the past" is often described as

purer, cleaner, and of better quality than it is today, despite technological advances and state management through SAAE. This process of symbolic construction reinforces the representational elements attributed to water, highlighting a sense of loss and environmental degradation over time, a phenomenon widely discussed in Environmental Education (Leff, 2001; Jacobi, 2003; Reigota; Prado, 2008).

Moreover, a noticeable discrepancy emerges between the social representations of urban and rural students. While rural students demonstrate awareness of their dependence on springs and artesian wells, some urban students remain unaware of this reality, assuming that everyone is supplied by SAAE. This limited repertoire suggests a narrow perspective on water access and sanitation, reflecting socioeconomic inequalities and highlighting the influence of social context in shaping social representations of this resource. Thus, Class 2 reveals that water is not only a material resource but also a representational object imbued with social, historical, and emotional meanings, mediated by family relationships, collective memory, and structural inequalities.

In Class 1 (28.9%), titled "Cleaning and Maintenance of Rivers," discursive excerpts are grouped that reflect students' social representations of the challenges of environmental preservation and the possible actions to mitigate water pollution and protect water resources, with two distinct subcategories being identified.

Regarding the first subcategory, the analysis reveals that the group perceives water as a resource simultaneously threatened by pollution caused by inadequate societal management and unequally contested, with fragile control by the State. For students from urban areas, there is a clear understanding that public authorities remain insufficiently attentive to water preservation, neglecting the implementation of a structured system for garbage collection, sewage treatment, and other systemic actions aimed at water sustainability. Among students from rural areas, although the State is mentioned as responsible for water management and conservation efforts, there is a recurring complaint that large landowners and small producers use water for crop irrigation and engage in deforestation near springs, converting these areas into pastures without respecting environmental reserves. These practices contribute to the progressive degradation of water resources, as illustrated in the following statements:

> [...] To dry up a spring, all you have to do is remove the vegetation and replace it with pasture. I believe there should be public policies to help conserve springs, and there should also be sewage collection and treatment so that waste is no longer dumped into the river. (Urban school participant 02)

> [...] The use of uncontrolled irrigation, sewage and garbage dumping, and the deforestation of riverbanks are major problems. Preserving springs and ensuring sustainable use, including

> reusing part of the water that can be recovered, are essential. We must stop sewage from entering the river. (Rural school participant 12)

The second subcategory highlights the actions suggested by the students to mitigate water pollution and preserve water resources. According to the group, these initiatives should occur both at the State level, through the development and implementation of public policies focused on sustainability, management, and control of water resources, especially regarding sewage treatment and proper waste disposal in urban areas, and at the social level, through the promotion of collective awareness about the responsible use of water. The students emphasize that effective water preservation will only be possible within a harmonious system in which humans, animals, and water coexist in balance within biodiversity.

> [...] I believe there should be public policies that help preserve the springs, and there should also be sewage collection and treatment so that waste is no longer dumped into the river. [...] I think there are still fish in the rivers, and for those who collect water from springs, this makes a difference. Since I get water from SAAE, I don't notice this difference, but I believe spring water must taste better and be fresher. (Urban school participant 02)

> [...] But trees help keep the water cooler. I see uncontrolled crop irrigation as a problem. We should use only the necessary amount of water, avoiding waste, and we should prohibit household sewage from being discharged directly into rivers. (Rural school participant 08)

The representational elements expressed in Class 1 reinforce that students understand water both as an essential resource and as a symbolic element marked by disputes and insufficient attention from public authorities. Water degradation is interpreted because of urban pollution and the lack of adequate infrastructure, as well as the uncontrolled use of resources in rural areas. While urban students perceive failures in the formulation and implementation of public policies for river protection and basic sanitation, rural students emphasize the impact of exploitation by large landowners, highlighting tensions between different social groups. These interpretations align with the Social Representations Theory (Moscovici, 2003; Jodelet, 2001), which emphasizes how representations emerge from social interactions and symbolic disputes, shaped by historically situated practices and discourses.

Class 3 (26.2%), titled "Pollution and Preservation," brings together textual excerpts that express students' social representations regarding the roles and responsibilities involved in the degradation and conservation of water resources. Unanimously, the group attributes to humanity both the responsibility for polluting water sources and the duty to preserve them. The students perceive water degradation as a direct consequence of a productive and economic model based on indiscriminate waste disposal and irresponsible consumption, with little regard for environmental

consequences. As a result, nature has been severely impacted, leading to extreme fluctuations between droughts and floods, affecting both urban and rural areas. This concern is illustrated in the following statements:

> [...] To preserve springs, it is necessary to reforest the surrounding areas. (Rural school participant 05)
>
> [...] When it rains, it carries a lot of soil into the river, causing siltation and damaging the vegetation. (Urban school participant 03)
>
> [...] Rivers are also very important because the environmental balance depends on their waters [...], but springs are better preserved as many are located within environmental protection areas. (Urban school participant 07)
>
> [...] Negative practices that cause impact include dumping garbage into rivers, deforesting areas near springs, and polluting water with industrial chemicals and domestic waste. (Urban school participant 05)

Another point highlighted by the group concerns the impact of water pollution on human health and well-being, emphasizing the risks associated with consuming water contaminated with chemicals. The group stresses the need for effective public policies and sustainable initiatives to address these issues, such as water quality monitoring programs and incentives for environmentally friendly practices in agriculture and industry. In this regard, Almeida (2023) points out that educational campaigns in schools foster greater community participation in environmental conservation projects, indicating that integrating public policies with education is essential for promoting a sustainable environment and ensuring the preservation of water resources.

In summary, the results reveal that students' social representations of water are structured around three main axes: (1) daily use and essentiality; (2) preservation and environmental impacts; and (3) management and access to water resources. These representations highlight that water, beyond being a material resource, is also a symbolic object imbued with social, cultural, and historical meanings. Overall, water is perceived as a vital and indispensable element, linked to basic needs such as hygiene and food, as well as to leisure and well-being.

However, guided by Jodelet's (2017) psychosocial perspective, despite convergence in certain representations, clear disjunctions emerge between urban and rural students, especially concerning access to and management of water. For urban students, water is predominantly conceptualized as a State-managed service, with its supply mediated by SAAE and subject to service charges. In contrast, rural students demonstrate a more direct and dependent relationship with springs and artesian wells, highlighting the vulnerability of communities without regular water supply. This

contextual difference shapes the group's concerns: while urban students emphasize deficiencies in basic sanitation infrastructure and urban river pollution, rural students denounce the impacts of large landowner exploitation, deforestation of spring areas, and instability in access to potable water. For urban students, water is perceived primarily as a regulated public utility, whereas for rural students, it takes the form of a natural spring, symbolizing direct dependence on nature, clearly illustrating that different social groups construct and experience their representations in distinct ways.

3 FINAL CONSIDERATIONS

The study investigates the social representations of water among elementary school students from urban and rural schools in Vargem Alta, in the state of Espírito Santo, Brazil, highlighting how these representations shape attitudes and practices related to the use and conservation of water resources.

While students from urban schools benefit from more robust infrastructure, rural school students face challenges that may compromise their health, safety, and academic performance. Although both contexts provide essential public services, such as health facilities, the existing gaps in rural areas demand special attention to improve living conditions and ensure a more equitable learning environment.

Notably, students' interpretations of environmental degradation and water resource management reveal that, while urban students associate pollution with inadequate sanitation and waste disposal, rural students emphasize predatory agricultural practices and deforestation. This division reinforces the notion that social representations are not homogeneous but are shaped by the territorial and social contexts of the individuals involved. As Jodelet (2017) points out, social representations are organized through lived experiences and collective discourses, guiding how individuals perceive and interact with their environment. Thus, the image of water, far from having a single and fixed meaning, is imbued with diverse symbolisms and interpretations, perceived simultaneously as a right, a consumer good, a threatened natural element, and a heritage to be preserved.

This study demonstrates how distinct local contexts shape students' representations of water, underscoring the importance of Environmental Education programs tailored to the specific realities of each setting. Consequently, the findings reinforce the role of schools in fostering citizenship and guiding both pedagogical strategies and public policies aimed at the conservation and sustainable use of water resources. Therefore, the results suggest that Environmental Education adapted to the characteristics of each context can promote greater awareness, behavioral change, and the adoption

of sustainable practices, ensuring the responsible use of water and the long-term sustainability of both communities and ecosystems.

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