

# THE USE OF MONTEIRO LOBATO'S LITERATURE AS A STRATEGY TO INSERT ENVIRONMENTAL EDUCATION IN THE EARLY YEARS

A UTILIZAÇÃO DA LITERATURA DE MONTEIRO LOBATO COMO ESTRATÉGIA PARA INSERIR A EDUCAÇÃO AMBIENTAL NOS ANOS INICIAIS

# EL USO DE LA LITERATURA DE MONTEIRO LOBATO COMO ESTRATEGIA PARA INSERTAR LA EDUCACIÓN AMBIENTAL EN LOS PRIMEROS AÑOS

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## **ABSTRACT**

Studies related to Environmental Education become viable, as they allow inferences about environmental practices that support the preservation of nature. In this sense, the use of Monteiro Lobato's works in the Early Years demonstrates a possible path for the inclusion of this theme. In this context, this article aimed to a) analyze in the works of Monteiro Lobato the didactic potential of these and possible teaching strategies on environmental education that can be used in science classes in the Early Years; b) identify environmental content in works and c) contribute to the expansion and dissemination of scientific knowledge about Environmental Education among students in the Early Years. The methodological analysis classified as qualitative and bibliographic and was based on the categorization of the works Urupês, A Reforma da Natureza, Caçadas de Pedrinho and O Poço do Visconde, using Bardin's conten analysis (2011). To this end, these works were selected, analyzed and grouped into two categories a posteriori, these being "Strategies and Didactic Potentials Present in the Works"; and "Contents and Concepts about the Environment present in the works". The results demonstrated that Monteiro Lobato's works can be used in science classes to work on content related to environmental issues, in addition to presenting strategies with didactic potential about the environment, corroborating their viability in teaching environmental education in childhood.

**Keyword:** Literature. Reading. Environment. Monteiro Lobato.

## **RESUMO**

Este trabalho objetivou: a) analisar nas obras de Monteiro Lobato, bem como o seu potencial didático e possíveis estratégias de ensino sobre Educação Ambiental que podem ser utilizadas em aulas de ciências nos Anos Iniciais; b) identificar nas obras conteúdos sobre o meio ambiente e c) contribuir para a ampliação e divulgação do conhecimento científico sobre Educação Ambiental entre alunos dos Anos Iniciais. A análise metodológica classificase como qualitativa e bibliográfica e deu-se a partir da categorização das obras Urupês, A

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Reforma da Natureza, Caçadas de Pedrinho e O Poço do Visconde, de Monteiro Lobato, seguindo a análise de conteúdo de Bardin (2011). Para tanto, essas obras foram selecionadas, analisadas e agrupadas em duas categorias, a posteriori: "Estratégias e Potencialidades Didáticas Presentes nas Obras"; e "Conteúdos e Conceitos sobre Meio Ambiente presentes nas obras". Os resultados obtidos nesta pesquisa demonstraram que as obras de Monteiro Lobato apresentam estratégias com potencial didático sobre o meio ambiente, com diferentes tipos de abordagens, sendo estas: abordagem dialógica, abordagem crítica, abordagem dialógica conceitual, e abordagem experimental, que podem ser utilizadas para inserir a temática Educação Ambiental nos primeiros anos escolares corroborando com a viabilidade desta temática na infância. As obras também podem ser utilizadas em aulas de ciências para trabalhar conteúdos relacionados às questões ambientais, como hábitat, nicho ecológico, cadeia alimentar, dentre outros temas.

Palayras-chave: Literatura, Leitura, Meio Ambiente, Monteiro Lobato.

#### **RESUMEN**

Este trabajo tuvo como objetivo: a) analizar las obras de Monteiro Lobato, así como sus potencialidades didácticas y posibles estrategias didácticas en Educación Ambiental que pueden ser utilizadas en las clases de ciencias en la Educación Infantil; b) identificar contenidos ambientales en las obras y c) contribuir a la ampliación y difusión del conocimiento científico sobre Educación Ambiental entre los estudiantes de Educación Infantil. El análisis metodológico se clasifica en cualitativo y bibliográfico y se basó en la categorización de las obras Urupês, A Reforma da Natureza, Caçadas de Pedrinho y O Poço do Visconde, de Monteiro Lobato, siguiendo el análisis de contenido de Bardin (2011). Para ello, estos trabajos fueron seleccionados, analizados y agrupados en dos categorías, a posteriori: "Estrategias didácticas y potencialidades presentes en las obras"; y "Contenidos y Conceptos sobre Medio Ambiente presentes en las obras". Los resultados obtenidos en esta investigación demostraron que los trabajos de Monteiro Lobato presentan estrategias con potencial didáctico sobre el medio ambiente, con diferentes tipos de enfoques, a saber: enfoque dialógico, enfoque crítico, enfoque dialógico conceptual y enfoque experimental, que pueden ser utilizados para insertar el tema Educación Ambiental en los primeros años de la escuela, corroborando la viabilidad de ese tema en la infancia. Los trabajos también se pueden utilizar en clases de ciencias para trabajar contenidos relacionados con temas ambientales, como hábitat, nicho ecológico, cadena alimentaria, entre otros temas.

Palabras clave: Literatura. Lectura. Ambiente. Monteiro Lobato.



## 1 INTRODUCTION

Environmental Education is an important theme that must be worked on in the classroom since childhood, mainly due to the discussions about this subject that impact society and permeate the school environment. Thus, Carvalho (2005) argues that Environmental Education is based on the concern of ecological movements with the practice of environmental awareness, in order to draw the population's attention to the misuse and depletion of natural resources, so that appropriate environmental actions can be resorted to.

In this context, Cechin and Pretto (2019) emphasize that it is necessary to value the importance of understanding the environmental problem and seek solutions and actions that take into account the social, economic, and cultural reality. In this way, Environmental Education in childhood makes children learn to take care of nature and use the resources existing in it with responsibility and care, awakening the awareness of preserving the place where they live.

In this sense, it is up to the teacher to be the mediator of this knowledge in the classroom, providing students with significant and current learning, which contributes to their formation as students and citizens. Freire (1996, p.47) states that "teaching is not transferring knowledge, but creating the possibilities for its own production or construction". In other words, the educator must be the bridge for this knowledge to reach the students, making them build their own ideas and observations on the topic in question.

In addition, "Children's Literature, used properly, is an instrument of paramount importance in the construction of the individual's knowledge, making him awaken to the world of reading not only as an act of meaningful learning" (Hermes; Kirchner, 2018, p.4). In this way, literature, combined with reading, allows children to have different perceptions of the world, and to be able to read things around them in their own way and realize the importance of the act of learning to read.

Thus, it is pertinent to understand with acuity the origin of Children's Literature in Brazil and its use as a source for the teaching of environmental themes. According to Lajolo and Zilberman (2007), Children's Literature emerged in Brazil from Europe in the second half of the nineteenth century, with classic stories such as tales and fables. The stories were translated into Portuguese and thus read by the children. However, with the desire to have Brazilian children's stories suitable for children, in 1921, Monteiro Lobato published the book Narizinho Arrebitado, which became a huge success among children. With this success, the author founded publishing houses such as Brasiliense and Monteiro Lobato & Cia, in which he published several books dedicated to children. Nowadays, he is recognized as one of the



main children's writers and considered the father of children's literature in the country (Lajolo; Zilberman, 2007).

Lajolo and Zilberman (2007) state that Monteiro Lobato's most famous works are those whose stories involve the characters of the Yellow Woodpecker Farm, such as Dona Benta and Tia Nastácia, Narizinho "The girl with the snub nose" and Pedrinho – grandchildren of Dona Benta –, Emília – a talking doll known as the "Marchioness of Rabicó" –, Viscount of Sabugosa – an ear of corn who is a wise scientist –, among others. These characters appear in several of the author's works, such as Reinações de Narizinho, A Reforma da Natureza, A Chave do Size, O Poço do Visconde, Caçadas de Pedrinho and O Saci.

Based on the above, this study aims to: a) analyze in the works of Monteiro Lobato their didactic potential and the possible teaching strategies on environmental education that can be used in science classes in the Early Years; b) to identify in the works contents about the environment; and c) to contribute to the expansion and dissemination of scientific knowledge on environmental education among students in the early years.

The present work is structured in three sections, in addition to this introduction. In section two, the methodological procedures are presented; in the following section, the results are analyzed and discussed; Finally, the main conclusions of the work are presented.

## **2 METHODOLOGY**

This research is classified as qualitative and bibliographic. In qualitative research, there is a level of reality that cannot be quantified. In this type of research, the aim is to understand the phenomena and facts studied (Minayo, 2009). In this sense, Lüdke and André (1986) state that qualitative research has the natural environment as a source of data, and the researcher is the main instrument. Thus, it can be emphasized that the researcher has a direct contact with the fact that is being studied through the investigation and interpretation of the results present in the study environment. Still, it is important to point out that, "bibliographic research consists of secondary sources. It is the one that seeks to survey books and magazines of relevant interest to the research that will be carried out. Its objective is to provide the author of the new research with information on the subject of his interest" (Lara; Molina, 2011, p. 24).

Gil (2010) emphasizes that bibliographic sources can be books, newspapers and magazines. Books can be characterized as reading and dissemination, or even literary, such as poetry, theater, and novels. For Gil (2008), bibliographic research allows for a larger sample, unlike field research, in which the researcher has to collect data from the subjects



involved in the research. In this type of research, however, the published data must be carefully analyzed before replicating them.

In this context, four works by Monteiro Lobato were chosen and analyzed, namely: The Reform of Nature, Caçadas de Pedrinho, Urupês and O Poço do Visconde. It was read and keywords that corresponded to the research objectives were searched. The keywords used in the search field were: a) environmental; b) environment; c) environment; d) nature; e) animals; f) plants and g) sciences.

After reading and analyzing the works, excerpts and quotations that contained the keywords or that had some relationship with the research theme were removed. Then, these excerpts and quotations were analyzed and it was verified whether there were strategies and potentialities, concepts and teaching contents in the works, which indicated a relationship with the theme of environmental education. Once identified, they were grouped into categories created a posteriori, following Bardin's (2011) content analysis.

For Bardin (2011), categorization occurs through the classification of elements that constitute a set, which can occur by differentiation or regrouping, according to the analogy genre. Categories are grouped into a group of elements based on a generic title. Content analysis is divided into three fundamental phases: a) pre-analysis, b) exploration of the material and c) treatment of the results. Categories can be created a priori or a posteriori, that is, through theory or after the data is collected.

Although Bardin's (2011) content analysis is used in research focused on science teaching that requires data categorization, there are limitations of this approach, such as information saturation. In qualitative research, data saturation is considered when the data obtained start to present, during the analysis, redundancy or repetition, and are not considered pertinent (Fontanella; Rich; Turato, 2008). That is, excessive use of information can occur, saturating the data collected, causing its repetition. In this sense, the researcher must be careful that this repetition of information does not harm his research.

#### **3 RESULTS AND DISCUSSION**

## 3.1 ANALYSIS AND DISCUSSION OF THE RESULTS

Four works by Monteiro Lobato were analyzed, which are shown in Table 1. The analysis of the works was divided into two categories, which were subdivided into a posteriori subcategories. The categories elaborated from the reading of the works were: 1 - Didactic Strategies and Potentialities Present in the Works; and 2 - Environmental Content Present in the Works.



**Table 1**Corpus of research analysis

Work	Title	Year of publication
1	Urupês	1918
2	Pedrinho's Hunts	1933
3	The Viscount's Well	1937
4	The Reform of Nature	1939

Source: Organization of the authors.

The first category of analysis refers to the "Strategies and Didactic Potentialities Present in the Works". For this category, three subcategories emerged:

- a) Subcategory "Signaling of didactic potential in the work": the works of Monteiro Lobato
  that presented excerpts and quotations with didactic potential for the teaching of
  Environmental Education in science classes were grouped;
- b) Subcategory "Signaling of didactic potential with weaknesses present in the work": works that presented excerpts or quotations with weaknesses or conceptual errors in relation to the environmental theme were grouped. It was also taken into account whether the terms and concepts present in the work presented errors in the writing or in their meaning, without correcting them;
- c) Subcategory "Absence of didactic potential": there were no works that did not present didactic potential during the analysis. In other words, all the works analyzed showed potential for the teaching of Environmental Education.

The categorization for this category can be seen in Table 2. It is pertinent to highlight that, in each subcategory, there are only enough excerpts or quotations to demonstrate that Monteiro Lobato's works have didactic potential. These potentialities can be used or not in science classes to address the theme of Environmental Education.

The excerpts with the identification of didactic potentialities are underlined and written in bold.

 Table 2

 Results for the category "Strategies and Didactic Potentialities Present in the Works"

Subcategory	Work	Inserts	Excerpts and Quotes
Signaling of Didactic Potential on site (09 occurrences)	The Viscount's Well	Dialogic approach;  Conceptual approach;  Experimental approach.	Excerpt 1: "— How funny! I never thought about it. — That's right. Water is the mother of life — and the father is heat. Without water and heat there is no life possible. But in the beginning, there was no water. There was only water vapor, or water in a gaseous state. Oxygen and hydrogen, when they combine, become rebellious to excessive heat. For this reason, instead of remaining embedded in the burning mass of the earth, they fled,

			being suspended in the air in the form of a great cloud
			surrounding the ball." (Lobato, 1937, p. 16).  Excerpt 2: "Nature that lives by experimenting with things, after creating plant life, will decide to experiment with a novelty: animal life. The process of nature is that of <b>trial</b> and error. <b>Experiment, err; experiment, err;</b> suddenly, he tries and gets it right – and then fixes or keeps that right, and moves forward with other experiences. – And did he get it right with the animal?  – So much so that here we are, most perfected animals." (Lobato, 1937, p. 25).
			Excerpt 3: "- Ahn! - exclaimed Peter So that's why oil doesn't form in the organic matter above the earth. She is exposed to the air, given over to the fury of oxygen That's right. Oxygen is a kind of guardian of nature, with the mission of keeping things in a certain state of balance. We see this with iron. This metal does not exist in nature in the free state of pure iron. It exists in the form of iron oxide, that is, mixed or combined, with oxygen." (Lobato, 1937, p. 37-38).
			Excerpt 1: "I'm making a beautiful <b>collection of butterflies</b> and I can't do those blue ones. They are the most risky. We also have to reform the butterflies.
			Impossible, Emilia! – cried the Frog. "Everything about them is so perfect, so neat and beautiful, that any renovation spoils them. My reform of the butterflies – explained Emilia – is not in their beauty, but in their genius. I want them to become 'catchable' like beetles." (Lobato, 1939, p. 26-27).
	The		Excerpt 2: "What is this, Emilia? What do these changes mean? Emilia told everything.
	Reform of Nature	Dialogic approach.	I have reformed Nature," she said, "I have always had the idea that the world here was as crooked as in Europe, and while you were fixing Europe I fixed the Site. []
			Dona Benta did not come to her senses of astonishment.
			But what an absurdity, Emilia, to reform nature! Who are we to correct anything that exists? And when we reform something, there are many consequences that we did not foresee. The work of Nature is very wise, it cannot be reformed by poor creatures like us. Everything that exists has taken millions of years to form, to adapt; if it is at the point where it is, there are a thousand reasons for it" (Lobato, 1939, p. 41).
Signaling of Didactic Potential on site (09 occurrences)	The Viscount's Well	Dialogic approach; Conceptual approach; Experimental approach.	Excerpt 1: "- How funny! I never thought about it That's right. Water is the mother of life – and the father is heat. Without water and heat there is no life possible. But in the beginning, there was no water. There was only water vapor, or water in a gaseous state. Oxygen and hydrogen, when they combine, become rebellious to excessive heat. For this reason, instead of remaining embedded in the burning mass of the earth, they fled, being suspended in the air in the form of a great cloud surrounding the ball." (Lobato, 1937, p. 16).  Excerpt 2: "Nature that lives by experimenting with things, after
			creating plant life, will decide to experiment with a novelty: animal life. The process of nature is that of <b>trial</b> and error. <b>Experiment, err; experiment, err;</b> suddenly, he tries and gets

<b>Y</b>

		it right – and then fixes or keeps that right, and moves forward
		with other experiences. – And did he get it right with the animal? – So much so that here we are, most perfected animals." (Lobato, 1937, p. 25).
		Excerpt 3: "— What is to emerge? — It is to appear on the surface of the earth. — Does Earth have a flower? - said Emilia, widening her eyes. The Viscount scratched his head. — Flower, Emilia, it's not just this colorful and fragrant treat that plants produce. The word flower also means surface. When we say: On the surface of the skin, we are saying: on the surface of the skin. To appear on the surface of the earth means to appear on the surface of the earth. Therefore, when something appears on the surface of the earth, it emerges. That's what Asuring is all about; it is to appear on the surface. Do you understand?" (Lobato, 1937, p. 53-54).
		Excerpt 1: "I'm making a beautiful <b>collection of butterflies</b> and I can't do those blue ones. They are the most risky. We also have to reform the butterflies.
	Dialogic approach.	Impossible, Emilia! – cried the Frog. "Everything about them is so perfect, so neat and beautiful, that any renovation spoils them. My reform of the butterflies – explained Emilia – is not in their beauty, but in their genius. I want them to become 'catchable' like beetles." (Lobato, 1939, p. 26-27).
The		Excerpt 2: "What is this, Emilia? What do these changes mean? Emilia told everything.
Reform of Nature		I have reformed Nature," she said, "I have always had the idea that the world here was as crooked as in Europe, and while you were fixing Europe I fixed the Site. []
		Dona Benta did not come to her senses of astonishment.
		But what an absurdity, Emilia, to reform nature! Who are we to correct anything that exists? And when we reform something, there are many consequences that we did not foresee. The work of Nature is very wise, it cannot be reformed by poor creatures like us. Everything that exists has taken millions of years to form, to adapt; if it is at the point where it is, there are a thousand reasons for it" (Lobato, 1939, p. 41).
Pedrinho's Hunts	Critical approach;	Excerpt 1: "A tortoise came forward and said: — The way I see is to move to other lands. — What lands? - replied the capybara. "There is no more habitable land in this country. Men are destroying all the forests, burning them, reducing them to pastures for oxen and cows. In my time as a girl we could walk a hundred days and a hundred nights without seeing the end of the forest. Now, those who walk two days anywhere they find the end of the forest. Men have spoiled this country. The idea of the tortoise is not worth much. Impossible to move, because we have nowhere to go."
		(Lobato, 1933, p.18).
		Excerpt 2: "Where would he be? In the forests of the Amazon? In the virgin forests of Espírito Santo? Nobody knew. Telegrams arrived from everywhere suggesting clues. One from Manaus said: "In a forest, ten leagues from this city, the black figure of

			a monster that seems to be the rhinoceros was seen inside a
			thicket of taquaruçus. We ask for action." (Lobato, 1933, p. 43).
	Urupês	Dialogic approach;	Excerpt 1: "A barefoot yard surrounds the house. The bush borders it. Neither fruit trees, nor vegetable garden, nor flowers – nothing revealing of permanence. There are a thousand reasons for this; because the land is not theirs; because if they "touch" it, there will be nothing left that others will use; because for fruit there is the bush; because the "creation" eats; because" (Lobato, 1918, p.16).
			Excerpt 2: "In the middle of Brazilian nature, so rich in shapes and colors, where the flowering ipês shed spells in the environment and the inflorescence of the cedars, at the first rains of September, opens the dance of the manakins; Where there are sun bees, live emeralds, cicadas, thrushes, light, color, perfume, Dionysian life in permanent scab, the caboclo is the gloomy urupê with rotten wood, silently languishing in the recesses of the grotas. He alone does not speak, does not sing, does not laugh, does not love. Only he, in the midst of so much life, does not live" (Lobato, 1918, p. 25-26).
			Excerpt 1: "Matter is all that exists – said Narizinho. – Maybe you're right, but for now what science says is that <b>matter is what occupies a place in space and has weight</b> " (Lobato, 1939, p. 33).
Signaling of didactic potential with weaknesses present in the work (5 occurrences)	The Reform of Nature	Conceptual dialogic approach;	Excerpt 2: "I have always thought Nature was wrong. [] Everything that is too much is wrong. And the more I 'study Nature', the more I see mistakes [] Why so much pout in Aunt Nastácia? Why two horns in front of the cows and none behind? Enemies attack more from behind than from the front. It's all like that. Very wrong. If I were to reform the world, I would leave everything charming []" (Lobato, 1939, p. 14).
	The Viscount's Well	Conceptual dialogic approach; Experimental approach;	Excerpt 1: "Even today there are tiny beings that are neither quite vegetable nor quite animal. "What are they, then?" – They are plants and animals at the same time. This shows that in those beginnings of life on earth, there was a time when the animal was still half there, half here, half plant, half future animal. Nature that lives by experimenting with things, after creating plant life, decided to experiment with a novelty: animal life. The process of nature is that of trial and error. Experiment, make mistakes; it experiments, it makes mistakes; suddenly, it experiments and gets it right – and then fixes or keeps that rightness, and plays forward with other experiences." (Lobato, 1937, p. 25).  Excerpt 2: "The black woman in the beginning denied so many novelties; Finally he ended up liking it. "We have no choice but to go with the wave," she said, "And in the end we like it, because it's really good." When Seu Pedrinho came up with the story of that supergas in the kitchen, I dared it, thinking it was peta. But it worked. No more endrology of lighting a wood fire, and blowing, blowing, with burning eyes. Now all you have to do is twist a little tap and a little wind comes out that catches a blue fire – and hot as hell! What a cleanup! A creature even gets slutty with so many facilities today. And the refrigerator, then? Just put things in there, pull a bolt and close the door. It generates a cold inside that even looks like the pole that Seu Pedrinho tells. The water turns into glass, it is so hard. He says



			it's ice. And meat and fish don't spoil there – they can stay with bread. And this little house on wheels that walks everywhere? Good thing, yes. It entertains us. We vary, we see new faces and things. I'm enjoying it, I'm enjoying it, yes" (Lobato, 1937 p. 232-233).
	Pedrinho's Hunts	Conceptual dialogic approach;	Excerpt 1: "Many rhinos have been hunted since the world began, but none would be hunted as dearly and with as much <b>science</b> as that one. Although they never left here, these <b>men</b> could well move to Africa to teach the blacks of Uganda how to hunt wild beasts" (Lobato, 1933, p. 66).
Lack of didactic potential			

Source: Organization of the authors.

The results for the category "Didactic Strategies and Potentialities Present in the Works" showed the presence of excerpts or citations with didactic potential related to the environment present in the works of Monteiro Lobato, corroborating the idea that they can be used to insert the theme of Environmental Education in science classes in Elementary School, as they have scientific concepts and specific subjects about this area of teaching. No works were found in the subcategory "Absence of didactic potential".

Didactic potentialities were inserted, which were named and grouped according to the excerpts mentioned in Chart 1. Therefore, for the insertion "Dialogic approach", the excerpts that presented the characters dialoguing with the situations through explanations were grouped. For the insertion "Conceptual dialogical approach", the excerpts and quotations that presented the explanation of scientific concepts through dialogicity were grouped. The insertion "Experimental approach", in turn, appeared in the excerpts that showed that problems and hypotheses could be tested through experiments. The "Critical approach" was related to the passage in which the tortoise character appeared criticizing the destruction of nature by the action of man.

In addition, the works also presented concepts and terms with weaknesses, that is, conceptual errors, nomenclature, which, for the time the works were written, were in accordance with the reality of the period, but which nowadays need to be updated, or even corrected by the teacher in the classroom, if he makes use of any of these works and these errors are identified.

To do so, it will be necessary for students and teachers to use the textbook or dictionary to correct conceptual errors. These errors also appeared in some passages in the speeches of Tia Nastácia, who, in the stories of the site, represents the citizen with popular knowledge, coming from common sense.



Thus, Cielo (2006) emphasizes that the science teacher must be aware of the conceptual errors found in literary works, seeking to avoid misconceptions and, thus, reinforcing alternative learning. Therefore, the teacher's attention focused on the use of the textbook is essential to avoid mistaken learning, based on error, and the use of materials that present conceptual errors, which can compromise teaching in science classes.

Groto and Martins (2015) emphasize the potential of *the work The Reform of Nature* in the work of issues related to the environment:

In relation to the work *The Reform of Nature*, we confirm its potential for approaching the scientific content it contains. The work was particularly efficient for addressing environmental issues, since it stimulated the formation of attitudes and individual positions of our students in the face of some of these issues (Groto; Martins, 2015, p.235).

"The Reform of Nature, in Lobato's narrative, considers the reform of man himself included in the meaning of the word 'nature', a sign and meaning that move in the space of the narrative: a new understanding of nature, of the human and of the social reality that surrounds him" (Brito, 2019, p. 10). In Lobato's works, nature is seen as an unrestricted resource, represented by the threat of human actions in society that wipe out species of plants and animals (Ribeiro, 2014).

Monteiro Lobato's contributions highlight the possibilities such as: knowledge of aspects of Brazilian fauna and flora, legends and myths that contribute to the assimilation of concepts and significant learning about the child's environment, whether the natural environment or culture (Cechin; Pretto, 2019, p. 7).

At Sítio do Pica-Pau Amarelo, classes are conducted based on the characters' curiosity to learn about oil, as Pedrinho and Narizinho ask the questions, while Viscount answers, as it is a well of wisdom (Silveira; Zanetic, 2017).

Cielo (2006) discusses in his master's thesis about other works by Monteiro Lobato that can be used to work on Environmental Education, such as *The Key to Size* and *Memories of Emília*. According to the author, *The Key to Size* addresses wars and issues related to the destruction of nature because of the effects of man's actions, while *Memories of Emilia* addresses the injustices that occur in the world, from an environmental perspective.

Costa (2008) defends the use of Monteiro Lobato's works to reconstruct conceptions of Environmental Education among Early Childhood Education teachers. In her research, the author emphasizes that the author is an ecological subject and that he presents ecological conceptions in his works. Therefore, it is opportune to read his texts in Early Childhood



Education and use them to reconstruct such conceptions, including the work with the works The Reform of Nature and The Key to Size.

Thus, these authors corroborate the data obtained in this research. Thus, the use of Monteiro Lobato's literature in science classes can be inserted as a necessary strategy, in view of the potential of the works and their applicability in everyday life, stimulating the curiosity of children as thinking subjects, capable of being sensitized by environmental issues. In addition, it is possible to discuss the acquisition of specific environmental knowledge, scientific concepts, and the use of these beyond the school environment, since it is in school that children will learn the contents and concepts, but it is outside of it that they will express them through their daily activities.

## 3.2 ENVIRONMENTAL CONTENT PRESENT IN THE WORKS

The second category of analysis refers to the "Environmental Contents present in the works". For this category, three subcategories were identified:

- a) Subcategory "Science content addressed in the work": the works in which it was possible to identify excerpts or quotations that demonstrate their potential for use in the classroom by the science teacher to work on content related to the environment and nature were grouped;
- b) Subcategory "Mistaken contents and concepts addressed in the works, discussed and presented": works that presented scientific content or terms in an erroneous way, in addition to conceptual errors, without the slightest identification and correction made by Monteiro Lobato, or the authors in the most recent editions of the works, were listed. It is important to take into account the time when the works were written and published;
- c) Subcategory "Implied content, but without explanation in the work": works that presented excerpts or quotations with implied science content related to Environmental Education, but that were not explained or deepened throughout the story, not presenting potentialities, were identified.

The words with the contents identified in the works are written in bold in the highlighted passages, as shown in Table 3.

 Table 3

 Results for the category "Environmental Content present in the works"

Subcategory	Work	Excerpts or Quotations
Science content covered in the work	Urupês	Excerpt 1: "The possession of certain objects confers supernatural gifts. Invulnerability to stabs or lead charges is achieved thanks to the fern flower. This plant, says Jeca, only blooms once a year, and only



(16 occurrences)	1	produces one flower in each fown. This was at midnight an Ct
(10 occurrences)		produces one flower in each fern. This was at midnight, on St. Bartholomew's Day. You have to be very smart to harvest it, because the devil is also on the lookout. Whoever manages to catch one, immediately hears a bang and dizziness at the smell of sulfur – but gets rid of knife and lead for the rest of his life." (Lobato, 1918, p. 23).
		Excerpt 1: "— What is silica? — One of the most abundant minerals in nature. After oxygen, it is the one that appears in greater quantity. <b>The sands are formed of silica.</b> But, as I was saying, these little plants have cells with a silica cover, so that when they die and what is inside the cells disappears, only the shell remains. Alongside the diatoms there are also many fossils of radiolarians, foraminifera, oysters, etc." (Lobato, 1937, p. 27).
		Excerpt 2: "That's right. Oxygen is a kind of guardian of nature, with the mission of keeping things in a certain state of balance. We see this with <b>iron</b> . This metal does not exist in nature in the free state of pure iron. It exists in the form of iron oxide, that is, mixed or combined with oxygen. Iron ores, or iron stones, as people say, are nothing more than this combination – they are iron oxides. But man goes and melts the stone and manufactures the metallic iron that is used to make a thousand things – knives, wire, nails, rebar, plates, rails." (Lobato, 1937, p. 37-38).
	The Viscount's well	Excerpt 3: - "And what about those organic rocks? — They are <b>sedimentary rocks</b> made up of the remains of animalcules and plants. When a forest is buried, all the trees in it become a rock called <b>coal</b> , <b>or stone coal</b> . In the swamps, the aquatic plants that die and sink form a rock called peat. And in the seas, when the shells of numerous animalcules and fish skeletons are sedimented, conglomerates of <b>limestone rock are</b> formed. These are the organic rocks." (Lobato, 1937, p. 21-22).
		Excerpt 4: "What does metamorphic mean? — It means that it has undergone a <b>metamorphosis</b> . Metamorphosis is the passage from one state to another. Emilia, for example, metamorphosed into a person, that is, she went from a rag doll to a person. Butterflies are products of a very interesting metamorphosis. Caterpillars begin, those hairy animals that walk around crawling, eating plant leaves; one day the caterpillars stop eating, shrink into a twig and undergo a metamorphosis; they become cocoons. The cocoon spends a lot of time sleeping, and one fine day the butterfly comes out of it. Everything is metamorphoses." (Lobato, 1937, p. 22).
		Excerpt 5: " <b>Geology</b> is the history of the Earth. Everything that has happened since the birth of this planet of ours is written in the rocks that form it. The earth is a rock, a ball of stone." (Lobato, 1937, p. 11).
		Excerpt 6: "– Little – replied Peter. Some big animals, some plants, some bugs and microbes. Alone. –Exactly. But in a piece of sea the size of this room fits a colossus of life, because this piece of sea can descend up to 9,000 meters deep, as in the Sea of Japan, and is full of life from top to bottom. For this reason the <b>fauna and flora</b> of the sea are immense, much richer than the fauna and flora of the land. Cetaceans and fish represent the large forms of marine life – whales, sharks, swordfish, tuna, salmon, herring. But much more than that are the forms of tiny life, which instead of swimming floats in the immense liquid mass. If the small flora and fauna were gathered in a block, they would give a mountain much larger than that formed by all the fish." (Lobato, 1937, p. 29).



	Excerpt 7: "— How funny! I never thought about it. — That's right. Water is the mother of life — and the father is heat. Without water and heat there is no life possible. But in the beginning, there was no water. There was only water vapor, or water in a gaseous state. Oxygen and hydrogen, when they combine, become rebellious to excessive heat. For this reason, instead of remaining embedded in the burning mass of the earth, they fled, being suspended in the air in the form of a great cloud surrounding the ball." (Lobato, 1937, p. 16).
	Excerpt 1: "Coffee with dumplings came. The bearded man took it and settled down his ideas. A few minutes later he was arm in arm with the Viscount, strolling around the room and absorbed in a very deep conversation about glands. "I am interested in discovering the true function of the Pineal Gland," said the Viscount. —Creed! Exclaimed Aunt Nastácia, who had come to take the tray out of the café. — This 'language' scares us" (Lobato, 1939, p. 64).
	Excerpt 2: "—Ah, this is one of the reforms that I think is most necessary: the reform of the <b>hills</b> . Whenever I have to climb a hill, I get tired and out of breath. And so I imagined something like this, the peaks will be downwards instead of upwards, so that when you have to go to the peak of a hill you go down instead of up. []—No. This idea is very silly. It is much better to make the hills very low, so that they do not tire us; or else we will leave the hills alone. Why climb the hill? (Lobato, 1939, p. 43)."
	Excerpt 3: "I'm making a beautiful collection of <b>butterflies</b> and I can't get these blue ones. They are the most risky. We also have to reform the butterflies.
	Impossible, Emilia! – cried the Frog. "Everything about them is so perfect, so neat and beautiful, that any renovation spoils them.
The Reform of Nature	My reform of the butterflies – explained Emilia – is not in their beauty, but in their genius. I want them to become 'catchable' like <b>beetles</b> " (Lobato, 1939, p. 26-27).
	Excerpt 4: "And what reform do you intend to do to the ants, Emilia?
	Oh, none. I studied the case and saw that with them there is nothing to reform. Everything perfect. I give a candy to anyone who finds a way to improve the lives of ants. The Frog thought, thought and finally agreed that it is really difficult to improve the lives of ants" (Llobato, 1939, p. 27).
	Excerpt 5: "What is this, Emilia? What do these changes mean? Emilia told everything.
	I have reformed Nature," she said, "I have always had the idea that the world here was as crooked as in Europe, and while you were fixing Europe I fixed the Site. []
	Dona Benta did not come to her senses of astonishment.
	But what an absurdity, Emilia, to reform nature! Who are we to correct anything that exists? And when we reform something, there are many consequences that we did not foresee. The work of <b>Nature</b> is very wise, it cannot be reformed by poor creatures like us. Everything that exists has taken millions of years to form, to adapt; if it is at the point where it is, there are a thousand reasons for it" (Lobato, 1939, p. 41).

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	Pedrinho's Hunts	Excerpt 1: "When the life of <b>wild animals</b> is threatened with general danger, the old rivalries cease. The ocelot stops chasing hares. The otter forgets its hunger and can even talk kindly with the fish it feeds on. The bush dog passes close to the porcupine without the latter raising the needles. So, when they heard the words of the capybara, both the hawk and the bem-tevis forgot the quarrel and came to sit down before her, one next to the other, as if nothing had happened between them." (Lobato, 1933, p. 16).  Excerpt 2: "The case was like this. As soon as, on that stormy night, the
		rhinoceros escaped from the cage and entered <b>the woods of Tijuca</b> , he walked aimlessly, and went on, always forward, at a respectable trot until, at dawn, he appeared in <b>the virgin forest</b> of Dona Benta's farm. He liked the place and decided to stay there, grazing the lush foliage of the herbs he found." (Lobato, 1933, p. 44).
		Excerpt 3: "Of the residents of Dona Benta's farm, the most wandering was the Marquis of Rabicó. She knew all the forests, including the capoeirão dos Taquaruçus, <b>a very dense bush</b> where Dona Benta did not let the boys go for a walk. One day when Rabicó ventured into this bush in search of the <b>wooden ears</b> that grow on the rotten trunks, it seems that things did not go very well for him, because he returned in the volada." (Lobato 1933, p. 5).
Contents and misconceptions addressed in the works, discussed and presented (4 occurrences)	The Viscount's Well	Excerpt 1: "— One of them is to be isolated from the waters. This isolation frees organic <b>matter</b> from being devoured by certain living beings, the little vultures of the small world. And it also frees from the insatiable form of the largest vulture that exists in Nature, the so-called Mr. Oxygen. This customer has a goat's appetite. It eats everything it finds, that is, <b>it oxidizes everything it finds</b> , as the chemists say. Oxygen exists in water and air; That is why the organic matter that falls into the water, or is exposed to the air, spoils quickly, disappears, <b>oxidizes</b> — it is devoured, in short, by the terrible vulture." (Lobato, 1937, p. 37).
	The Reform of Nature	Excerpt 1: "— I know! The Viscount explained this to me. Weight is what holds things to the surface of the Earth. He says that the weight comes from such a force of gravity, that it pulls all things to the center of the Earth. This force of gravity is attraction, or <b>centripetal force</b> . You can't imagine, Frog, how the Viscount knows things! A naughty one! He also said that the opposite of <b>centripetal force is centrifugal force</b> — which instead of pulling things to the center of the Earth, expels things away from the center of the Earth. That's what happened with D. Benta's chair." (Lobato, 1939, p. 39).
	Pedrinho's Hunts	Excerpt 1: "As a fight could come out of that dispute, the Viscount pondered gravely: — Everyone helped to <b>kill the jaguar</b> and everyone deserves praise. But if it weren't for Pedrinho's gunpowder, we would be lost; so that Pedrinho has the best part of the victory. After blinding the jaguar, everything became easier and each one did what they could. Enough of discussions. Instead, let's take care of it but take it home." (Lobato, 1933, p. 12-13).
		Excerpt 2: "— Guess, Grandma, what we killed! "Some naughty people like you are very likely to have killed some paca The girl laughed heartily. "Which paca, don't even pear paca, grandma!" Climb! "So, some



		deer," the old woman reminded her, starting to widen her eyes. "Come up, Grandma!" "Pig-of-the-woods, is it possible?" "Come up, go up!"  The good lady did not know how to climb beyond a capybara, which was the largest animal there. Little Nose, then, came to her and said, making a terrified face: —A jaguar, grandma! Dona Benta's fright was the biggest of her life — so great that she fell sitting, suffocating, exclaiming: — Our Lady of Aparecida! These kids still drive me crazy More courageous, the black woman approached, saw that it was really a jaguar and: — The world is lost, sinhá — she murmured, with folded hands. — It's really a jaguar" (Lobato, 1933, p. 14-15).
Implied content, but without explanation in the work  (2 occurrences)	Urupês	Excerpt 1: "When he attends the fairs, everyone immediately guesses what he brings: always things that nature spills through the bush and the only thing that man has to do is stretch out his hand and harvest – tucum or jiçara coconuts, guabirobas, bacuparis, passion fruits, jataís, pine nuts, orchids; or artifacts from taquara-poca – sieves, baskets, samburás, tipitis, hunter's chirps; or soft wooden utensils – troughs, pestles, wooden spoons." (Lobato 1918, p. 13-14)  Excerpt 2: "From the land he only wants cassava, corn and sugarcane. The first, because it is a bread already kneaded by nature. Just pull out a root and pour it into the coals. It does not impose a harvest, nor does it require a barn. Planting is done with a palm of branch stuck in any ground. It does not ask for care. The ant does not attack it. Cassava is shameless." (Lobato 1918, p. 17).

Source: Organization of the authors. Emphasis added.

The results for the category "Contents on the Environment present in the works" showed that the works *Urupês*, *A Reforma da Natureza*, *Caçadas de Pedrinho* and *O Poço do Visconde* can be used in science classes, as they present excerpts and quotations that fit the contents planned to work on the theme of Environmental Education in the first school years.

In this sense, Carvalho (2007) discusses Lobato's view of the role of the child in the environment and the division of history in the work *The Reform of Nature*:

In the work 'The Reform of Nature', the author guides the child as a modifier, active and aware of his actions and 'impacts' on the environment. The fable is divided into two parts: in the first Emily reforms plants and animals to correct 'the foolishness and errors of nature'; in the second, it is the Viscount who guides the actions based on his scientific arguments and criteria (Carvalho, 2007, p. 341).

Emilia and Viscount are the main characters in most of the stories of Sítio do Pica-Pau Amarelo. While Emilia plays the role of the talking doll that so self-possessed wants to change everything, Viscount plays the role of the scientist, who, despite obeying the doll's orders, becomes aware of the order of nature, realizing that there are things that cannot be changed and much less changed. Therefore, he takes the lead in the situation, and is responsible for



elaborating problems, testing hypotheses, mediating scientific concepts, making explanations and experiments, leaving Emilia's blunders aside.

In this sense, Carvalho (2007) argues that, in Emília's view, nature is seen as an error, which needs to be adjusted, reinvented, reinterpreted. Thus, science is used in the story under a utilitarian look of the doll, which aims to correct what it thinks needs to be fixed, in the midst of its simplification and objectivity.

Visconde, on the other hand, incorporates wisdom in himself, and as a wise scientist, through the problematization of the situations that happen on the site, he observes, experiments, and finds results, which help him to find a solution to most of his questions and those of the other characters in the plot.

Regarding the role of Viscount in the works, Silveira and Zanetic (2017, p. 94) emphasize:

The Viscount is the scientist capable of promoting great inventions. Always committed to his studies, he does not have the cunning of Emilia, the boldness of Narizinho and Pedrinho or the 'universal' wisdom of Dona Benta, but he is always willing to face the challenges of knowledge and is the example of a dedicated scholar of the sciences.

Groto and Martins (2015) point out that *The Reform of Nature* can be used to work on content related to the environment in science classes in Elementary School, such as, for example, content on habitat and ecological niche, pollination, ecological relations, preservation of the environment and human actions in relation to the environment. In addition, the presence of scientific aspects as elements of explanation for the various phenomena are also found with great frequency. There is reference, for example, to Physics and Chemistry, among other sciences (Oliveira; Goldfarb, 2012, p.18).

In Caçadas de Pedrinho, nature is portrayed as a place that poses a threat to man, with a dichotomy between the coexistence of man and the ecosystem. There is the representation of animals and the food chain, from a perspective that some are docile while others are evil (Ribeiro, 2014). This work addresses fauna and flora and the interactions between plants and animals, which demonstrates that it can be worked on in content that addresses ecosystems, ecological interactions and the food chain.

Still on *Caçadas de Pedrinho*, it is possible to say that the work addresses "illegal hunting" as a fun sport practiced by Dona Benta's grandchildren. Hunting ends up working in the story as a common thread that pulls the whole story, since the assembly held by the animals of the forest that starts the war between humans and animals occurs due to the death of a jaguar that was hunted and killed by the people of the site.



Therefore, although the work addresses environmental issues related to the configuration of the landscape on the site and in other places, it is important that the teacher, when working on it, be aware of the approach in relation to the practice of hunting, so that it is not romanticized by the children, but so that they understand that hunting and killing animals is not fun and is illegal.

Brito (2020, p. 1) emphasizes that "The habit of hunting is related to extreme cruelty to animals, in addition to being frequently associated with illicit practices. It even results in biodiversity losses, especially of birds and mammals, which are the most hunted groups."

In this context, Lobato (1933), in *Caçadas de Pedrinho*, treats hunting in a problematic way, but if this theme is worked on in the context of Environmental Education in order to act as a tool to combat this practice and bring awareness to children, it may be valid to use it in the classroom.

In *Urupês*, Lobato expresses his vision of the caboclo. The author highlights the character Jeca Tatu and explores his relationship with nature, addressing how the sertanejo man interacts and understands the environment in which he lives.

Park (1999) discusses Lobato's vision in the creation of the character Jeca Tatu and what he represents in the author's work:

The character born from Lobato's pen to express the endemic poverty of the country and the solutions proposed in terms of social medicine, sanitation, basic sanitation and reurbanization mirrors in the author the ideas of Progress and Civilization that marked the first decades of the twentieth century in Brazil. The Brazilian race would need to be molded and polished to tread such a path. The motto Health and Education summarized the civilizing ideal anchored in the trinomial ORDER/ORGANIZATION/WORK, whose natural enemies would be the state of poverty, dirt, illiteracy and ignorance (Park, 1999, p. 145).

In this way, the work *Urupês* can be used to address issues related to the sertanejo man of old, poverty, hygiene, capitalism and the influence of the natural environment on the life of the caboclo, within a cultural approach. This work can contemplate the teaching of both the initial and final years of elementary school, as the character Jeca Tatu leads children to curiosity.

Silveira and Zanetic (2017) argue that *O Poço do Visconde*, which has oil as its central theme, presents knowledge of Geology, Biology, Physics and Chemistry, and also involves Economics and Politics, and can be used as an interdisciplinary proposal. Therefore, it can be said that in addition to the "*Lobato*" works address content related to the environment, they also deal with other areas of the sciences, since they are interconnected, and their



elements are also part of the environment. Thus, they are related to the teaching of Environmental Education.

## **4 CONCLUSION**

In view of the above, it was evidenced that Monteiro Lobato's works have didactic potentialities and contents, which can be used to work on the theme of Environmental Education in science classes in the early years. In this sense, it is noteworthy that Monteiro Lobato inserted in his works characters who mediated scientific and environmental conceptions, who develop critical thinking throughout the stories.

In addition, the author addressed controversial topics such as the discovery of oil, the life of the sertanejo, hunting and the reform of nature, from an environmental perspective. Therefore, it is feasible to use the works A Reforma da Natureza, Caçadas de Pedrinho, Urupês, and O Poço do Visconde for the teaching of environmental issues.

Regarding the limitations found in this research, the process of categorization of the works, the scarcity of specific works with theoretical support on Environmental Education and Monteiro Lobato can be mentioned. In addition, in relation to the methodology used, care had to be taken with the analysis of data within the qualitative approach, so that they would not be repeated.

It is expected that this research contributes to the understanding of environmental conservation practices and dissemination of the teaching of Environmental Education among students of the Early Years from the literature of Monteiro Lobato, having seen its importance for scientific dissemination. May this research serve as an incentive for new studies to be made from the use of children's works within the academic environment, among students and teachers of courses focused on Environmental Education.

That teachers, when using Lobato's works in science classes to introduce the theme of Environmental Education, can extract from the works all the intellectual baggage of Monteiro Lobato as a writer, but also as someone who, concerned with environmental issues, addressed them in his works in order to generate reflection and awareness of children about the environment, playfulness, and the relationship of these from literature.

## **REFERENCES**

Bardin, L. (2011). Análise de conteúdo (1st ed.). Edições 70.

Brito, A. (2019). Espaço e técnica na obra A Reforma da Natureza de Monteiro Lobato: Aproximações entre a geografia e a literatura. Élisée - Revista de Geografia da UEG, 8(1), e81194. https://www.revista.ueg.br/index.php/elisee/article/view/8815



- Brito, D. F. (2020). A caça no contexto do Brasil: Análises das relações humanas e do impacto causado à biodiversidade do país [Trabalho de Conclusão de Curso, Universidade Federal Fluminense]. Niterói, RJ.
- Carvalho, I. C. M. (2005). A invenção do sujeito ecológico: Identidade e subjetividade na formação dos educadores ambientais. In Educação Ambiental: Pesquisa e desafios (pp. 51–63).
- Carvalho, F. A. (2007). Fragmentos literários para a educação ambiental. Revista Eletrônica do Mestrado em Educação Ambiental, 18, 336–348.
- Cechin, J., & Pretto, V. (2019). Educação ambiental e literatura infantil: Contribuições de Monteiro Lobato meio as práticas pedagógicas. HAL Ciência Aberta.
- Cielo, A. V. (2006). Educação ambiental, representações sociais e formação de professores (as): De volta à escola com Monteiro Lobato [Dissertação de Mestrado, Universidade Federal de Santa Maria]. Santa Maria, RS.
- Costa, M. C. F. B. (2008). A contribuição de Monteiro Lobato para a (re)construção de concepções e práticas de educação ambiental das professoras de educação infantil [Tese de Doutorado, Universidade Federal do Ceará]. Fortaleza, CE.
- Fontanella, B. J. B., Ricas, J., & Turato, E. R. (2008). Amostragem por saturação em pesquisas qualitativas em saúde: Contribuições teóricas. Cadernos de Saúde Pública, 24(1), 17–27.
- Freire, P. (1996). Pedagogia da autonomia: Saberes necessários à prática educativa. Paz e Terra.
- Gil, A. C. (2008). Métodos e técnicas de pesquisa social (6th ed.). Atlas.
- Gil, A. C. (2010). Como elaborar projetos de pesquisa (5th ed.). Atlas.
- Groto, S. R., & Martins, A. F. P. (2015). Monteiro Lobato em aulas de ciências: Aproximando ciência e literatura na educação científica. Ciência & Educação, 21(1), 219–238.
- Hermes, V., & Kirchner, E. (2018). A importância da literatura infantil no processo de aprendizagem na infância. Centro Universitário FAI.
- Lajolo, M., & Zilberman, R. (2007). Literatura infantil brasileira: História e histórias (6th ed.). Ática.
- Lara, A. M. B., & Molina, A. A. (2011). Pesquisa qualitativa: Apontamentos, conceitos e tipologias. In C. A. A. Toledo & M. T. C. Gonzaga (Eds.), Metodologia e técnicas de pesquisa nas áreas de ciências humanas (Vol. 1, pp. 121–172). Eduem.
- Lobato, M. (1918). Urupês. Brasiliense.
- Lobato, M. (1933). Caçadas de Pedrinho. Brasiliense.
- Lobato, M. (1937). O Poço do Visconde. Brasiliense.
- Lobato, M. (1939). A Reforma da Natureza. Editora Nacional.



- Lüdke, M., & André, M. E. D. A. (1986). Pesquisa em educação: Abordagens qualitativas. EPU.
- Minayo, M. C. S. (Org.). (2009). Pesquisa social: Teoria, método e criatividade (26th ed.). Vozes.
- Oliveira, L. S., & Goldfarb, A. A. M. (2012). A literatura infantil de Monteiro Lobato como instrumento de ensino das ciências: Uma proposta de trabalho a partir da História da Ciência. História da Ciência e Ensino: Construindo interfaces, 5, 13–21.
- Park, M. B. (1999). De Jeca Tatu a Zé Brasil: A possível cura da raça brasileira. Estudos Sociedade e Agricultura.
- Ribeiro, S. A. (2014). Literatura infantil: Contos e recontos do meio ambiente pantaneiro na obra Caçadas de Pedrinho de Monteiro Lobato. Revista Eletrônica Pesquiseduca, 6(11), 119–139.
- Silveira, M. P., & Zanetic, J. (2017). Monteiro Lobato e Paulo Freire: Problematizando O Poço do Visconde. Química Nova na Escola, 39(1), 89–103.