

Developing know-how to deal with trash: analysis of an online pedagogical practice in times of pandemic

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ABSTRACT

This paper aims to analyze a pedagogical practice seeking to understand its potential for promoting a critical reflection on the topic of Waste. The practice was developed within the scope of the discipline of Science and Decolonizing Cultures offered in the Remote Teaching model, due to the COVID-19 pandemic, in the Graduate Program in Scientific and Environmental Education of a Federal University. For this, evaluations made by scholarship holders of the Institutional Program of Initiation to Teaching scholarships were taken as data, who after watching the video, answered the following question: what are the positive points and points to be improved in practice. Therefore, this work fits into the Qualitative Research Methodology and the responses were analyzed using Content Analysis and, more specifically, thematic categorization. After the analysis, it was possible to find three categories which are: "Poem as an enhancer of practice", "Transdisciplinary approach" and "Problematization". Thus, it is possible to consider that the practice fulfilled its role to promote a critical reflection on the theme of garbage since it was based on Critical Environmental Education and brought art to problematize issues related to the theme, causing contextualized reflections that transcend how the theme is commonly addressed.

KEYWORDS: Garbage. Critical Environmental Education. Carolina Maria de Jesus.

1 INTRODUCTION

We live in a pandemic scenario that has forced us to reinvent our ways of living. Among these reinventions, we are rediscovering ways to do Education, being necessary to take into account the new reality in which we are inserted (ALVES AND CABRAL, 2020).

The quarantine, with the consequent interruption of classroom school activities, which began in Brazil in March 2020, has caused most of the Federal Universities, numerous private institutions, and some state and municipal public institutions to seek alternatives to maintain school contacts during the period. Thus, with greater or lesser agility, several forms of non-presence education have been implemented, from the use of social networks, online communication platforms, radio, television, or even printed material delivered to students for self-study at home.

This new way of doing - and thinking - Education carries with it numerous contradictions. Martins (2020) discusses that the closer contact with the Internet and its various resources ended up generating, among other things, digital exclusion, with perverse effects that bring to the surface the precariousness and impotence of this type of education. The author also points out that the implementation of remote learning distances the barriers that separated the face-to-face educational system from distance learning, which has its own legislation, unlike remote learning, which was hastily drawn up and its adaptation had to happen with the same proportion.

Given this scenario, just like all of humanity, the students enrolled in the course "Science and Decolonizing Cultures" in the Graduate Program in Science and Environmental Education at a Federal University in Brazil were taken by surprise by the effects of the pandemic, but the efforts to develop practices that meet a social, moral, cognitive, affective and human formation (GATTI, 2016) continued.

The course was concerned, even in a pandemic context, not to give up pedagogical practices that would bring the contents closer to the students, as well as provide a more human development from the contact with different expressions of culture, in this case, Art. Using poems, films, and music, studies were proposed on the cultural conformation of ancient and modern peoples, as well as reflections on the peoples who made up the Brazilian people: the original native people, the country people, and the people who came from Africa. The concern to insert art in the course is based on the perception of Duarte (2008), who points out the importance of the subjects, in the educational processes, to get in touch with the cultural wealth

accumulated by humanity, and art is one of the existing cultural manifestations.

Moreover, the theme on which this paper focused was garbage, but it was not limited to the environmental aspects caused by the culture of consumption, which leads to increased disposal and waste. The debate on this theme requires that attention be turned to an interface related to human intervention in the environment. About this relationship between humans and nature, Marx problematizes a vision of a naive and alienated relationship by telling us that

Nature is the inorganic body of man. Man lives from nature, or also, nature is his body, with which he has to keep in permanent interchange in order not to die. To say that the physical and spiritual life of man and nature are interdependent means only that nature interrelates with itself since man is a part of nature (MARX, 2010, p.84).

The alienated vision of the relationship between man and nature, which is based on the exploitation of nature understood as inexhaustible that would bring improvements to the lives of subjects, starts to be questioned. According to Trein (2012, p. 297), "the social relations that men establish among themselves and that they establish with nature mediated by labor assume this heteronomous face, with the great destructive power of the environment and human life. Thus, supported by Marxist ideas, Trein advocates an Environmental Education that considers the transformations of men in nature, as well as the transformations that nature causes in subjects, dialectically (TREIN, 2012).

From this context, and based on Critical Environmental Education, this paper aims to analyze a pedagogical practice made through a video produced in the course Science and Decolonizing Cultures, offered remotely as a result of the COVID-19 pandemic, seeking to understand the potential of the practice developed to promote critical reflection on the topic of Garbage.

2 METHODOLOGY

The context of the data constitution, a brief presentation of the pedagogical practice developed, and the methodology of analysis will be described below.

2.1 The Context of the Data Constitution

Because of the Emergency Remote Learning model, the meetings of the course Science and Decolonizing Cultures took place online, using the Google Meet platform. The meetings were weekly, synchronous, with the participation of the course teacher and the students. Even though these were classes in the Emergency Remote Learning model, the teacher of the course sought dynamic and creative ways to stimulate reflection, using art to problematize issues related to the themes addressed.

Based on the critical reflections proposed in the synchronous online meetings, the students were asked to elaborate and present classes to other colleagues, as a real teacher training activity. The students were divided into pairs, and each pair should approach contents that permeate the Science related to each of the peoples that make up the Brazilian people and, also, should use some form of artistic expressions, such as poetry, music, image, among others, as a way to problematize the central issue of the lesson that was prepared.

Considering the pandemic context and the classes in an online format, the experience that on other occasions was done face-to-face, in the case portrayed in this article required the

adaptation of the students of the course, since the proposed class should also meet the standard of emergency remote studies. It is worth remembering that among the guidelines for the task was the main requirement that the class could not be expository.

The themes emerged from the discussions promoted in the synchronous meetings of the aforementioned course, and from the reflections proposed on the colonial invasion of Brazilian lands and the imposition of a Eurocentric model of seeing the world. Starting from a historical approach, which also made use of art, we were led to face the current problems of Brazilian society, with Garbage being a problem that must be reflected on and faced. Certainly, the work and life of Carolina Maria de Jesus had already touched the post-graduates and, through the mediation of the professor responsible for the discipline, the list of aspects that would be approached was built and delimited, especially due to the need to make the practice interesting and feasible within the time available for presentation.

2.2 The pedagogical practice

The central theme of the proposal, as previously mentioned, was Garbage. Attentive to the critical perspective that involved the subject, it was discussed, then, the possibility of starting from the central theme of garbage to provoke reflections on the responsibility with garbage and the culture of leftovers, associating problems related to consumption and unbridled disposal of modern society to more critical issues that were directed towards a broad discussion about the aspects that involve the objectification and disposal of human beings, placed on the margins of society.

The poem by Carolina Maria de Jesus (1996), "*Muitas fugiam ao me ver*", was chosen as a starting point for the problematization, because the poet's own life story and the verses of the chosen poem were in tune with the class discussion proposal, to think about waste based on reflections about responsibility.

Thus, the poem stands out:

*Many ran away when they see me
Thinking I didn't understand
Others asked to read
The verses I wrote.*

*It was paper that I collected
To pay for my living
And in the trash I found books to read
How many things I wanted to do
I was held back by prejudice
If I extinguish I want to be reborn
In a country where black people predominate.*

*Farewell! Farewell, I will die!
And I leave these verses to my country
If we have the right to be reborn
I want a place where the black man is happy (JESUS, 1996).*

The students chose to produce the material for the non-expository class in a video, to meet the demands of social distancing imposed by the COVID-19 pandemic. Using an online

platform, they held meetings to discuss the theme, delimit the proposal, and define how the subject would be approached.

They developed the script intending to start from the problematization of garbage disposal, progressing to more critical discussions about consumerism, the objectification and depersonalization of the human being, individual responsibility and the magical idea of public disposal, the marginalization of garbage dumps, and of people, the difficulty of the human being in dealing with the idea of finitude and compensation in consumption, the refusal of the middle class to see itself as part of the problem that puts garbage dumps and people at the margins of society, in addition to criticizing the simplistic idea that recycling would be able to correct all the ills that consumerism causes to planet Earth and society.

The students created, consequently, a video divided into two moments. The first moment shows the students in a real context. They talk on the phone about the work they were supposed to do, and one of them shows the difficulty in doing it because of a personal problem she had with the sewer pipe, due to garbage that had been disposed of incorrectly, which caused the network to become clogged. In this phase, the problematization of the proposed theme was presented.

In the second moment, from the initial conversation, a fictitious denouncement program was started. The students are now characters in the program. One plays the host and the other plays the guest. The subjects of the script are introduced as if they were part of the program. The poetry of Carolina Maria de Jesus sets the tone of the conversation. The poem was then approached from each stanza, and each stanza created a problematization that opened the way for critical reflection on the proposed subthemes.

To keep the attention of those watching the video, the images of the fictitious program were interspersed with several images related to the subject under debate. Images were selected from the internet for free use, but that would contribute to the proposal of critical reflection on the subject being discussed. Thus, images, another artistic expression, were used to create a visual appeal to the viewer.

It is worth mentioning that the materials used were recorded with a cell phone and on the Zoom platform. For the editing of the images the program Adobe Premiere, a free version, was used. The video, in total, was 18 minutes and 56 seconds long and is available on the YouTube platform at the following link: https://youtu.be/nANrRY_EvTw.

2.3 Data analysis

The video was presented to undergraduate students of the Biological Sciences course who are part of the Institutional Program for Scholarship Initiation to Teaching (PIBID) and they evaluated the practice by answering the following question in writing: "What were the positive points and points to be improved in the practice developed?". The answers of the seventeen (17) participating fellows were taken as data for this work and were analyzed according to Bardin's Content Analysis (2016).

The technique of Content analysis, as of the twenties, was understood as a research method that studies the communications of individuals, evidencing the content of the messages (TRIVINOS, 1987). Thus, content analysis is outlined by a set of techniques for analyzing communications, which employs a series of mechanisms, in such a way that investigates and systematizes a description of the content of messages, from indicators that allow the inference of knowledge (BARDIN, 2016).

Therefore, from the analysis of the scholarship students' answers, it was possible to understand representations that they presented concerning their interpretation of the meanings worked in the video, with the theme of garbage. That said, it is valid to say that in content analysis the frequency with which they manifest certain characteristics of the content

serves as an information, as well as the presence or absence of a characteristic of the content (BARDIN, 2016). Thus, these representations were systematized in the results and discussions, based on three categories, and their descriptions and frequency.

3 RESULTS AND DISCUSSION

To maintain the anonymity of the participants, the names of the students were replaced and identified by the letter A followed by a number from 1 to 17. We present below the scholar's speeches in their entirety:

A1 - "The pedagogical practice was very well thought out, the video ends up exploring the issue of waste production and using it dynamically and creatively in the form of an interview that thinks critically about the social and philosophical issues surrounding this topic. It has no points to be improved."

A2 - "Pedagogical practices that are intentionally organized to meet certain educational expectations requested/required by a given social community, face, in their construction, an essential dilemma: their representativeness and their value come from social pacts, from negotiations and deliberations with a collective where they are developed by adherence, by negotiation, or, still, by imposition. Therefore these forms of concretization of themes such as waste produce different faces for the scientific perspective in the teaching-learning process."

A3 - "As positive points, this video was very formative and dynamic, the teachers knew how to conduct it very well bringing the focus of how to know how to renew with waste and raising social, cultural, philosophical, biological and even psychoanalytic issues, besides not letting it become expository and tiresome, holding the attention of those who were watching through an excellent edition, and with a very rich content, which allows us to say that they dedicated themselves and sought to give their best for the construction of this video. Also, the way they explored the message that the verses of a poem bring us throughout the video was very productive and enriching. As for points to be improved, there were none."

A4 - "Positive points: - The dialogue made between the poem "Muitas fugiam ao meu ver - Carolina Maria de Jesus" and a bit of how people of different classes deal with what they consume, besides different concepts that founded the dialogue was very well put, in an organic, coherent and provocative way. Points for improvement: - Something related to what to do with the trash could have been addressed, to make people responsible for their trash. Surely, many people cannot deal with their garbage and throw it away, making it unusable and harmful to the environment. But if it is possible to teach people about who should take responsibility for their garbage and stop throwing things "away", what is the idea of away? Where is outside? Outside can be someone's "inside", it's actually inside our world, everyone's world. So I think that could be more visible in the problematization of the video."

A5 - "Positive points: the practice was very interesting and creative. The part about putting the TV show on and using resources like the poem was very good. Points for improvement: I couldn't see any."

A6 - "Positive points: The girls' video contained a lot of intriguing and necessary information about garbage, the use of the poem "Muitas fugiam ao meu ver de Carolina Maria de Jesus" further enriched their lesson. Another positive point was the way they both conducted the topic problematizing and addressing cultural, biological, social issues... Points to be improved: I don't know if it was only me who felt this, but the height of the girls' voices was different, so I often had to increase the volume when one was going to speak and decrease it when it was the next. Other than that, I didn't see any points to be improved."

A7 - "The video was very didactic, since one of the girls was suffering from this at home, regarding the video. The poem "Muitas fugiam ao meu ver de Carolina Maria de Jesus" was very well discussed and detailed during the video, they problematized a lot the issue of waste disposal and also the production system, raising biological certainly, social issues. One of the points to be improved, in my opinion, would be the approach of various authors, which was very superficial or difficult to understand in some parts for me."

A8 - "The positive points were the organization of the talk and the dynamics, using experiences and poems as we progressed through the subject, no points for improvement."

A9 - "The creativity involved in the production is fascinating, we are caught up in the video because of the surprise... Instead of getting straight to the point, we get curious and entertained by the big problem Érica faces at home. Deborah's systemic analysis is also fascinating, very didactic, and formative. Carolina Maria de Jesus' poems are a moral lesson, the choice couldn't have been happier."

A10 - "I liked the dynamics of the video, the initial issue, and how that could be solved. The famous problematization. I loved the poem, it was very strong and enchanted me. As the teacher was explaining each part of the poem, I found myself enchanted by it."

A11 - "Interesting the way the teachers started the video by problematizing something from everyday life. Due to a clogged drain in their house, they decided to contact the Program "Denunciations and Reflections from Verses" to ask for help. The fictitious program created by them brought the theme "Culture of leftovers" intending to approach "A know-how with leftovers: art as a meeting with humanization". Positive points: I liked the poem that they analyzed by Maria Carolina de Jesus, because it awakened in me a different way of looking at garbage, at the issue of sanitary ideology, and even at something that I had not stopped to think about before: the location of landfills and dumps and the risks that this offers to the population that lives there. The post-graduate students knew how to creatively conduct the dialogue between the two presenters of the program. They reinforced our responsibility with garbage with questions that caught my attention: "Where does the garbage go when we discard it?" What most people forget is that when they put the garbage out of their homes, they are not getting rid of a problem, because that is where it starts. This is because garbage does not cease to exist when we put it out. The teachers also brought up important concepts such as the notion of responsibility for both private and public waste; what is a consumer society, programmed obsolescence - the consumption cycle that produces more waste - the throwaway culture; the role of education as the one that awakens critical consciousness. Something that caught my attention was that they were clarifying the verses of Maria Carolina de Jesus' poem, focusing on socio-cultural and philosophical aspects that are very current. Besides, they approached the recycling process and its benefits, the problem of the human being objectification process, and the simple and deep way in which the interaction of life with the work left by Maria Carolina applies nowadays. She who with her verses shouts to society "I exist, we exist". I thought that the images used in the video were impactful and very well-placed. Points to be improved: I thought that at the end of the video it would be interesting if the presenters would close the program and again Érika and Débora would enter the scene to make a quick conclusion of what they could learn from the program."

A12 - "The video has several positive points, but I want to emphasize the dynamics that were developed because this made it never tiresome to watch. In addition, I have to say that the use of the poem was very appropriate for the discussion. As for points for improvement, I can't see any at the moment."

A13 - "I think it is extremely important that we learn other dynamics in the study-learning sense. I really liked Érika and Débora's work, the subject approach, and how

the video was made in a way that captures the viewer, especially because it is an extremely significant daily subject."

A14 - "Positive points: Good problematization proposal, well-structured script and the way the video was planned enriched the class a lot, besides that both managed to pass great confidence and interpreted their characters very well. Points to be improved: In my point of view, I did not see anything to be improved, however with the content presented this class would be inserted exclusively for high school since the language is not so simplified."

A15 - "The practice was very inspiring to make us reflect on how the use of poems can dialogue with various social and scientific issues. I believe it should be a practice geared towards middle school due to the complexity of the approach. It was very creative and well elaborated, using an unusual event to transform it into a pedagogical practice is an incredible idea. The narrative was very well constructed, the video is instigating, it has a beginning, middle, and end, and most importantly, it is critical in its proposal."

A16 - "The class held my attention from beginning to end, the dialogue happened very naturally and explanatory, and the way it was conducted until the moment of explanation in the program was very subtle and fit very well in the video. The mastery of the content was outstanding, and the approaches in various areas of knowledge enriched the class. Points for improvement: I believe that for teacher training it was great, but to take it into the classroom students would need prior knowledge in various areas, which would perhaps lead to a simplification of the lesson."

A17 - "The class as a whole was very well-prepared and conducted, in all the concepts that were addressed it was possible to perceive a great domain of the teachers on the subject so that the dialogue between the two was natural and fluid. I really liked the proposal brought in the video of how to approach the issue of consumption (planned obsolescence, etc.) in a more dynamic and interesting way; I also really liked how in a class where the central theme would be "garbage" and everything that involves it (consumerism, reuse, improper disposal, etc.) Débora and Érika even managed to approach aspects of psychoanalysis."

From the analysis of the evaluations presented above, it was possible to build three categories *a posteriori*, which are presented with their description and frequency in table 1.

Quadro 1- Categoria, descrição e frequência

Categories	Descriptions	Frequencies
Poem as a potentiator of practice	In this category are inserted the speeches that referred to the dialog made with Carolina Maria de Jesus' poem as a potentiator of the practice.	A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A15
Transdisciplinary approach	Here are grouped the speeches that mentioned that the practice took into account aspects related to social, cultural, philosophical, and biological issues when approaching the discussion about garbage.	A3, A6, A7, A11, A15, A16
Problematization	Here are grouped the speeches that pointed to the problematization as a positive point of the practice.	A10, A11, A13, A14, A15

Source: First-hand authorship, 2021.

In the first category, named "Poem as a potentiator of the practice", are the speeches of students who brought that the dialogue of the theme addressed with the poem of Carolina Maria de Jesus was a potentiating point for the practice. The presentation of the poem is a way to bring the subject closer to art and, in this case, to a type of artistic production that is still elitist and is not usually present in the lives of many subjects, being a way to rescue the link with creativity and playfulness. It is through art that the subject expresses his way of relating to the social world (BIERDORF AND WANDSCHEER, 2011).

In this context, according to Monteiro, Paula, and Nascimento Junior (2018), the literature of poetry has been replaced by new media and technology, which leads us to the risk of a deficient education regarding a reflective, active, responsible, and aesthetic vision. This corroborates the liquidity context denounced by Bauman (2004), when he tells us about the substitution of human relations, cultural and artistic relations, by technologies, which fragment and weaken the bond of the subject with the social. From this perspective, an approach that is supported by Critical Environmental Education allied with creative intuition and art builds a space of possibilities, which provides an opportunity for reflection on how we relate to the environment and everything in it, providing effective possibilities to transform the reality in which we are inserted and overcome the socio-environmental crisis installed throughout history (MONTEIRO, PAULA AND NASCIMENTO JUNIOR, 2018).

It is noteworthy that amid this category, the most repeated speech among the comments of the PIBID fellows was the emphasis of poetry in the construction of dialogue with the issues addressed about garbage. Let's see, for example, an excerpt from student A11's speech, which elucidates the potential of poetry to awaken an enchantment with the approached subject:

"[...] I really liked the poem by Maria Carolina de Jesus that they analyzed because it awakened in me a different look at garbage, the issue of sanitary ideology, and even something that before I had not stopped to reflect on: the location of landfills and dumps and the risks that this offers to the population that lives there. [...]"

Also in the speech of student A15, it is possible to notice the appreciation of the experience of bringing an element of art to dialogue with science, expanding the possibilities of analyzing the theme:

"The practice was very inspiring, and it makes us reflect on how the use of poems can dialogue with various social and scientific issues[...]"

The proposed critical reflection also resorted to the naive idea that in nature nothing is lost, but everything is eternally transformed, an idea that marks the symbol of recycling. However, this statement leads us to two implications, and the first has to do with the idea of "eternally" since it does not mean that the garbage will be eternally reused; the second implication leads us to the psychic remnants of our relationship to otherness, remnants that continue to require work, since there is no magic, you don't throw the garbage in the trash can and it disappears, you don't throw the garbage in the gutter and it magically ceases to exist. There is a return of the rest, even if psychically and socially we try to keep it away.

In this way, the remainder that continues to demand work and the need to deal with it takes us to the encounter of the collective subject's capacity, or of society, to turn its eyes to itself, to what it positions as remainder. What Carolina Maria de Jesus materializes in her writing is a way to deal with the leftovers, whether they are material residues or psychic residues of otherness, creating, writing, circumscribing herself in art, and especially the re-implication of the leftovers in society, which sometimes understood her as such.

These issues are in line with the writings of Monteiro, Lourenço, and Villarta-Neder (2020), who analyzed the same poem used in the practice, and considered that it is a rich tool to raise discussions in educational settings, since writing plays a transformative role in Carolina's life, and it is through her words that she formulates and reformulates the reality in which she was inserted. The authors also pointed out that from Carolina's work, it is possible to bring critical discussions regarding the historical, political, social, and environmental dimensions of reality.

In the "Transdisciplinary Approach" category, the scholars' speeches allow us to infer the relevance of addressing environmental issues in a way that avoids fragmentation of the

understanding of the environment by addressing social, political, cultural, and philosophical aspects, consequently highlighting the link between nature, subjects, and society.

Many types of research in the field of education show that taking into account the historical, political, cultural, and social context of knowledge is substantial (FORGIARINI, 2008). It is from this transdisciplinary approach that the subject is linked to knowledge, thus avoiding a passive position concerning it (SOUZA, IGLESIAS E PAZIN-FILHO, 2014) at the risk of, in the words of Monteiro, Gonçalves and Nascimento Junior (2020, p. 279) "not stimulating the imagination and creativity of these individuals, nor the curiosity for the discovery of new knowledge".

The approach of Critical Environmental Education that presents this transdisciplinarity, avoids a deformed, alienated, and naive view of knowledge and problematizes the environmental issue from different perspectives (TREIN, 2012). However, to overcome a fragmented and naive view of environmental issues it is necessary to think about the one who mediates this knowledge, so it is also necessary to take into account the training of teachers. Therefore, we must think about reflective training, which develops criticality and problematization of social, political, economic, and cultural issues, in which knowledge is inserted (MONTEIRO, GONÇALVES E NASCIMENTO JUNIOR, 2020).

It was, then, thinking of going beyond the discussion of garbage in terms of recycling, which is sometimes taken to the classroom as representing the totality of the implications that garbage brings to society's reflection, that the dialogue under analysis was built.

It was proposed a reflection on the environmental problems that involve the disposal of garbage, but also the reasons that lead to the production of tons of discarded materials, proposing a reflection on the capitalist model that encourages the unconscious consumption of goods, while degrading the environment. The analysis, however, also pondered how we deal with the leftovers we produce, approaching the subject of leftovers from an environmental, social, and psychoanalytic perspective, an approach that was well received by the PIBID fellows, especially in the highlights that follow:

A3: "[...] this video was very formative and dynamic, [...] they knew how to conduct very well bringing the focus of how to know how to renew with the garbage and raising social, cultural, philosophical, biological and even psychoanalytical issues [...]"

A6: "[...] another positive point was the way they both conducted the theme problematizing and addressing cultural, biological, social issues [...]"

A11: "[...] they brought important concepts such as the notion of responsibility for both private and public waste; what is a consumer society, programmed obsolescence - consumption cycle that produces more waste - throwaway culture; the role of education as one that awakens critical consciousness. Something that caught my attention was that they were clarifying the verses of Maria Carolina de Jesus' poem, focusing on socio-cultural and philosophical aspects that are very current. Besides, they approached the recycling process and its benefits, the problem of the human being objectification process, and the simple and deep way in which the interaction of life with the work left by Maria Carolina applies nowadays [...]"

In the third category "Problematization", it was possible to notice that the students were stimulated to think based on the problem-situations that were posed in the pedagogical practice, as well as were curious about the outcome of the presented experience, allowing the individual to be enchanted with the dialectics of the video.

A problematizing education is based on the dialogical relationship between teacher and student, in which, through dialogue, the teacher presents different contextualizations for the construction of knowledge, besides instigating a critical and liberating thought (FREIRE, 1996). According to Temoteo, Carneiro, and Nascimento Junior (2020, p. 1787) "problematization is a process in which the learner is confronted with real situations,

destabilizing his previous knowledge and developing a gap that makes him want to know what he does not know yet".

Moreover, even though the practice was developed in a remote teaching context, problematization was something that made it possible to bring the content closer to the reality of the students, contributing to a more dynamic practice and that, together with the criticality put into play, provided subsidies for the students to take ownership of the discussion that was proposed (ROSA, MONTEIRO, AND NASCIMENTO JUNIOR, 2019).

It is possible to elucidate the scope that was obtained in the experience with the problematization from the speech of the two scholarship students:

A10: [...] I liked the dynamics of the video, Érika's initial problem and how it could be solved [...].

A11: Interesting how Érika and Débora started the video from the problematization of something from everyday life [...].

The highlighted excerpts demonstrate the potential of problematization regarding approaching a critical discussion about garbage, even if remotely and without the effective mediation of the teacher.

4 CONCLUDING REMARKS

This paper aimed to analyze a pedagogical practice on the theme of garbage, seeking to understand the potential of the practice developed to promote a critical reflection on the theme worked. Based on the analysis of the speech of the PIBID fellows, who watched and evaluated the practice, it was possible to find three categories that guided the discussion of this work.

The first category, which was named "poem as a potentiator of the practice", synthesizes the vision of the fellows regarding the role that Carolina Maria de Jesus' poem had, which was to problematize, dialogue with the theme, and, most of all, bring to light the social and political aspects that permeate the theme Trash.

Therefore, we can consider the potential of poetry to involve the discussions and awaken an enchantment in the students in what concerns seeing the theme in a contextualized way and awaken their interest for artistic expressions that are not commonly presented to them, as is the case of poetry.

The second category found, named "Transdisciplinary Approach", concerns the students' statements that brought the relevance of an approach that took into account social, cultural, philosophical, and biological aspects that permeate the theme of Trash. This approach was based on a critical understanding of the environment.

Furthermore, we can point to the need for an Environmental Education that is truly critical, and that allows going beyond superficial solutions to the issues that are presented, in this case, an approach that transcended the discussion that the separation of household waste is enough to solve the problem presented. It is clear that this attitude is important, but not enough to promote actions that stop or reduce the environmental degradation of our planet.

The evaluation of the PIBID fellows also made clear the potential for the proposal to unfold, starting with reflections on the responsibility for the garbage, when they pointed to the need for the video to bring an outcome that would solve, or that would present possibilities for the issue presented.

The third and last category, named "Problematization", pointed to the issues that were brought to problematize the practice. We can say that the problematization performed at the beginning of the video facilitated the understanding of the problems worked on from the Theme of Garbage and incited possible alternatives of solutions, potentiating the learning of sciences

from a critical spirit, while also assuming a political role denouncing the reality and the social context.

That being said, the experience put into practice also points to an alternative of Critical Environmental Education that, from the art, takes the tone of enchantment, drawing attention to the problematization of the proposed central issue, in this case, the garbage, and according to the record of the PIBID fellows, achieves the goal of making the subject see himself immersed in the reality under discussion and realize the extent, complexity and dialectical relationship of man with nature.

On the other hand, the practice, designed to adapt to the context of Emergency Remote Learning, and considering the extension of issues that permeate the idea of waste, required the delimitation, both of the issues to be highlighted in the problematization, and the time of the video produced. The evaluation of the students made clear the possibility of unfolding several points of the proposed reflection, demonstrating the potential of the subject, both to arouse interest in learning, and to promote a critical environmental education that overcomes traditional superficial approaches and contribute to the teacher training, directing the efforts of school education to develop the maximum potential of students.

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