

Environmental Education in Science Clubs: An analysis of the papers presented at the EIC's workshop

Educação Ambiental em Clubes de Ciências: Uma análise dos trabalhos apresentados no Workshop do EIC

Educación Ambiental en Clubes de Ciencias: Un análisis de los trabajos presentados en el taller de la EIC

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Abstract

Education is not a mandatory subject in the Brazilian curriculum, but official curricular documents and legislation in the field of education highlight its importance in the formation of the contemporary subject and, in addition, affirm that it must be worked in an integrated and transversal way within of educational institutions, either with the disciplines, as well as in projects. Thus, the objectives of this work were to analyze seven works presented at the Interactive Science Space (EIC) workshop. For this, scientific meetings were held with the students within the EIC Science Club, which lasted from April to August, and in the last three months, September to November, the students worked on the development of projects to present them in the workshop held on the premises from the University of São Paulo (USP). The main results showed that club members were concerned with environmental issues, decided to study them, and acquired a speech in favor of awareness of environmental causes.

Keywords: Science club; Environmental education; Workshop.

Resumo

A Educação Ambiental não é uma disciplina obrigatória no currículo brasileiro, mas os documentos curriculares oficiais e as legislações do campo do ensino destacam a importância desta na formação do sujeito contemporâneo e, além disso, afirmam que esta deve ser trabalhada de forma integrada e transversal dentro das instituições de ensino, seja junto às disciplinas, como também, em projetos. Assim, os objetivos deste trabalho foram analisar sete trabalhos apresentados no workshop do Espaço Interativo de Ciências (EIC). Para isso, foram desenvolvidos encontros científicos com os alunos dentro do Clube de Ciências do EIC que perdurou de abril até agosto, e nos últimos três meses, setembro a novembro, os alunos trabalharam no desenvolvimento de projetos para apresentá-lo no workshop realizado nas dependências da Universidade de São Paulo (USP). Os principais resultados demonstraram que os clubistas estavam preocupados com as problemáticas ambientais, resolveram estudá-las, e adquiriram um discurso em prol da conscientização e sensibilização acerca das causas ambientais.

Palavras-chave: Clube de ciências; Educação ambiental; Workshop.

Resumen:

La Educación Ambiental no es una asignatura obligatoria en el currículo brasileño, pero los documentos curriculares oficiales y la legislación en el campo de la educación destacan su importancia en la formación del sujeto contemporáneo y, además, afirman que debe ser trabajada de forma integrada y transversal. dentro de las instituciones educativas, ya sea con las disciplinas, así como en proyectos. Así, los objetivos de este trabajo fueron analizar siete trabajos presentados en el taller Espacio de Ciencia Interactiva (EIC). Para ello, se realizaron encuentros científicos con los alumnos dentro del Club de Ciencias de la EIC, que tuvo una duración de abril a agosto, y en los últimos tres meses, de septiembre a noviembre, los alumnos trabajaron en la elaboración de proyectos para presentarlos en el taller realizado en el local de la Universidad de São Paulo (USP). Los principales resultados mostraron que los miembros del club se preocuparon por los temas ambientales, decidieron estudiarlos y adquirieron un discurso a favor de la conciencia y la conciencia de las causas ambientales.

Palabras clave: Club de ciencias; Educación ambiental; Taller.

1. Introduction

With the advent of the Industrial Revolution, the accelerated population growth, and the technological development resulting from globalization, there was a great increase in the generation of environmental impacts, driven mainly by the high rates of consumption of natural resources and the emission of polluting gases (Mendes, Bezerra, 2018). Due to globalization, the world, in fact, has become increasingly integrative, and as far as the consumer society is concerned, that is, the consumption habit of society has generated a great expansion of industrial production and agribusiness aiming to supply the demands of this society, which has caused negative impacts on the environment.

Therefore, the concern for the environment and the civilizational crisis made such extremely important discussions to be held in places where there is the training process, since the human being is one of the main responsible for the environmental problems that the world has been passing, thus, it is necessary to have an understanding of the relationships between man and nature, since today we observe a detachment of the individual from the natural environment, and as Guimarães and Granier (2017) emphasizes, this generates an intense human activity on (and not with) the natural environment, causing a deficit disorder in nature for man, and damage to the environment. We believe that, with the practice of Environmental Education, it is possible to form more conscious and harmonic agents with the environment.

We also believe that in the practices of developing scientific research projects, students have the opportunity to seek solutions, as well as reflect on environmental problems, generating more critical and reflective citizens about environmental problems. But, how is Environmental Education manifested within research projects with Basic Education students?

Guided by this reflection, the general objective of this article was to carry out a critical analysis of the works presented in the workshop (science fair) of the Science Club promoted by the Interactive Science Space (EIC), emphasizing the works with environmental themes developed in the years 2018 and 2019. To this end, the methodology consisted of analyzing the students' resourcefulness and reflection during the course of the project development, the group's poster and also the engagement during the presentation and defense of ideas.

Thus, this research was of the Participating Research type, since there was an interaction between the researcher and the students responsible for carrying out the work, significantly influencing their final result. Thus, in this article, there was an explanation of the final results of the work and also some considerations raised by the researcher himself in his observations.

The importance of developing this work is justified due to the urgent need to train environmentally critical, correct and reflective citizens, and the best way to work with this training is at the stage in which the student is still in the schooling process, since there is an open space for dialogue and debate of ideas. Thus, understanding how students develop, think, explain and defend projects with environmental themes, gives us the opportunity to tread paths to increasingly develop activities that enhance such endeavors, aiming at a better quality of life on the planet.

1.1 The importance of Environmental Education

For Da Silva (2012) Environmental Education can be understood as a branch of education that aims to disseminate knowledge about the environment, aiming to train individuals who have knowledge, skills, values and experiences, which make them capable of acting individually and/or collectively in order to seek solutions and alternatives to environmental problems.

For Guimarães (2004) the school is an instrument that allows transformations and reflections of social conditions, in its most varied spheres, to be carried out, however, with regard to Environmental Education, there is still fragility in its incorporation in schools. And in this regard, Carvalho (2006) states that capitalism is one of the most responsible for hindering reflections in the sphere of Environmental Education, since it needs inequalities to continue as a way of subsistence, making

Education Environmental need to escape from the content and informative perspective and start to develop an expanded citizenship project.

Leff (2012) considers that since Environmental Education is an instrument that carries a new pedagogy, it is able to make all agents involved in activities with environmental themes, create links between what is called ecological reality towards the social contexts of insertion, which helps in the formation of environmental awareness and in more coherent and critical decision-making when related to the environment.

The process of placing Environmental Education as an instrument of a new pedagogy denotes that, when properly worked out, it is capable of transforming the social and cultural reality linked to better conditions and quality of life, since environmental conditions are directly linked to human health and ecological interactions. When young people have the opportunity to analyze, study and understand their own social reality, and seek alternatives to solve a given problem encountered, the feeling of belonging is sharpened, and learning about the importance of creating bonds and more than that, is enhanced seeking transformations is sharpened, and allows him to seek better living conditions.

We can say that the world is the very support for life, of human existence and, how the world, the human is unfinished and, for this reason, every human action can generate as a result a humanization or dehumanization of the world. Thus, the dialogue between students and educators, and the ties with reality, is fundamental for the construction of new knowledge, acting in an integral way in the subject-student citizen formation, with a bias committed to environmental sustainability, and the pleasure of search for improvements in their social reality and improvements for the world-space (Dickmann, Carneiro, 2012; Freire, 2004; Brutscher, 2005; Figueiredo, 2007).

Therefore, as the environment has become increasingly a matter of concern due to human actions, it is necessary to train critical and aware agents of the changes that have been happening on the planet. Thus, it is necessary to create ways to make society aware of the importance of preserving and caring for the environment, especially by forming citizens who understand that humans are an integral part of the environment, and not its owners. These activities can be developed when there is work with Environmental Education, which is substantial for the understanding of man-nature relationships, and the preservation of life on planet Earth.

1.2 Environmental education and fairs in the Brazilian scenario

To highlight how the environmental theme has been worked on within events in the format of science fairs, the presence of works in three lines was analyzed, namely the ENPEC (National Meeting of Research in Science Teaching), which is the most important of the events scientific studies in science education in Brazil, the theses and dissertations published in the country, and the articles available on the CAPES Periodicals Portal.

At ENPEC there were 35 works that highlighted the potential of science fairs as a space that privileges scientific literacy and the teaching and learning process, and, among these works, 7 highlighted the presence of environmental themes. Vasconcelos, Silva and Lima (2011) stated that at the fair they analyzed, it was the students who chose to work with environmental themes, since they were concerned with issues inherent to ecology, health and biodiversity due to the environmental conditions that the local community was found. That is, from the moment the students studied environmental problems in the community, they sought answers and solutions, and thus, there were indications of an effective work of Environmental Education.

In fact, the presence of works at ENPEC that highlighted the potential of fairs was small (35) but the amount of works that made a relationship between science fairs and environmental themes was even smaller, that is, even though they were very widespread in academia that science fairs have a high potential to assist in the integral development and protagonist in students, there are still few who analyze how environmental education can be worked, or are worked in this space.

With regard to articles published in Brazil that effectively worked with science fairs, 60 documents were found, and among these, only 16 cited or worked with projects with environmental themes. For Ruiz et al. (2016) when students participate in fairs, and there is an exhibition of works with environmental themes, students acquire a greater understanding of these issues, become more aware of the impacts and feel motivated to improve their habits or develop improvement projects.

We can say that today's exacerbated capitalism is harming the environmental quality, and the health of the planet. Linked to this, in the work by Nunes et al. (2016) science fairs nowadays, which enable the development of research projects, are able to make students active subjects in the construction of knowledge inherent to science, technology, social, moral and environmental issues, knowledge these that are fundamental for a critical and reflexive action in society, and thus, acquiring a critical and broad vision of the world in which they live.

Santagueta et al. (2020) also highlighted that through the development of projects for the fair, when interviewing the students, 100% of them answered that they need to improve their habits and 89% responded that this perspective was thought due to the development of the project for the fair.

The number of articles available on the Capes Periodicals Portal that made links between science fairs and environmental education were few, demonstrating that there is still a lack of work in the area within the scientific literature. But, according to the articles available when there is work or development of research projects that adopt environmental themes, and these are presented at science fairs, students acquire a more positive attitude towards the environment, and are able to seek improvements to your community, and even your daily habits.

And in relation to theses and dissertations defended in Brazil, the Capes Theses and Dissertations Portal was used to search, and thus, 93 theses and dissertations were found that worked on or cited science fairs. Among these, only 11 highlighted the presence of Environmental Themes.

Guijarro (2017), through his research, highlighted that the environmental theme has been worked on by most schools, especially when there are science fairs and the development of projects, this due to the fact that environmental issues are urgent for the world, and be a central theme in Brazil. For Mendes (2018) the environmental themes developed within the research projects carried out by students with a focus on presentation at fairs, make students recognize the importance of our natural resources as an essential object for the life of all living beings, making them that they value the environment, environmental culture, social contexts and ways of life more.

2. Methodology

This article aims to discuss some of the works presented in the last two editions of the Workshop of the Science Club of the Interactive Science Space (EIC). Therefore, considering the current debates about environmental issues and the importance of such discussions in educational institutions aiming at an effective Environmental Education, we sought to analyze the works whose themes contemplated environmental perspectives.

We also chose to analyze the work developed at the Workshop, since according to Ribeiro, Dos Santos and Bossolan (2020) in the development of projects developed by EIC's club students with the objective of presenting them at the workshop, they demonstrate the development of scientific skills, such as the choice of analysis questions, the raising of hypotheses, the collection of data, the systematization and reflection of the data, conclusion and the communication of the results. And, in fact, such characteristics are fundamental for scientific literacy, and the formation of critical and reflective citizens.

The activities developed and reported in this article were developed during the activities of the Science Club of the Interactive Science Space (EIC), coordination of Science Education and Diffusion of one of FAPESP's CEDIDs, which is the Center for Research and Innovation in Biodiversity and Pharmacos (CIBFar), from August to December 2018 and also 2019. The proposal to hold the workshop was applied to three classes of science clubs, one class in 2018 and two classes in 2019,

with a total of 48 students from ten public schools in the city of São Carlos, who were responsible, together with a tutor, for the preparation of research projects, posters and presentation of the results at the workshop.

The science club is held annually in the form of meetings, from March to December, lasting 3 hours each, in which club members meet at the EIC's premises to participate in the proposed activities. Such meetings are distributed between carrying out investigative activities, both theoretical and experimental, educational trips, cultural tours, and the workshop, held from August to December.

The workshop is the final activity of the science club, in which students are divided into groups, and each group guided by a tutor, and supervised by the EIC's educator, actively participate in the production of knowledge based on the principles of scientific methodology, or that is, from August to November they develop a scientific research project that they are interested in, and in December they present it at the club's Workshop on the premises of the São Carlos Institute of Physics at the University of São Paulo (IFSC/USP) and are evaluated by a committee, composed of graduate students from the University and also professors.

In these two years, 12 investigative works were developed, but, for this article, works whose themes had ties to Environmental Education were analyzed, which were seven works, aiming to understand how Environmental Education, even if involuntarily, can be worked within of these spaces, and how students see environmental issues.

Thus, this research consists of a participatory research and a case study, because an analysis was made of the work developed by the community, but there was also an interaction between all the agendas, highlighting that the researcher throughout the process proposed improvements and points of reflection for the groups involved in designing the activities. Brandão and Borges (2007) also point out that the issues arising along the way and the interactions between tutors and club members can frame this research as participatory research, since the researchers' manifestations significantly and potentially interfered with the achievements of the public who performed it the jobs.

3. Results and Discussion

During the Science Club Workshop held in 2018, six works were developed, whose themes were: 1) Acid rain, 2) Plant toxicity, 3) Action of pesticides on bacteria, 4) Current in solutions, 5) Chemical analysis of the coolant and 6) expansion of the materials. The works whose themes were 1), 2) and 3) included discussions inherent to environmental themes.

The work 1, named Action of acid rain on fruits, aimed to analyze and observe the action of acid rain on some fruits, such as banana, tomato and strawberry, and thus, analyze the importance of the peel in the protection of the fruit within the context of acid rain. Through a literature review, the students highlighted what acid rain is, and what it affects daily, such as buildings, vegetation and human health, and decided to analyze how acid rain can affect vegetation.

After the experimental setup, and the analysis of the results, the students raised questions about what they had observed. In the oral presentation, the implications for acid rain were regularly present, since the students highlighted the importance of reflecting and thinking about the environment, and also that the industrialization and transport process has harmed plant growth and development, which affect food distribution.

In this work, mainly what permeates the oral exposition carried out by the students, comes against the perspectives highlighted by Zamboni et al. (2012) since considering that all rain is acidic, and it is a phenomenon that is observed daily and is close to the reality of the students, then the philosophical reflection of the students is necessary to be directly linked to environmental awareness, since the knowledge previous studies and empirical knowledge work in the training of social agents, that is, the analysis, reflection and exposition of the results potentiated the issue of awareness regarding environmental issues, guaranteeing the formation of a more critical Environmental Education.

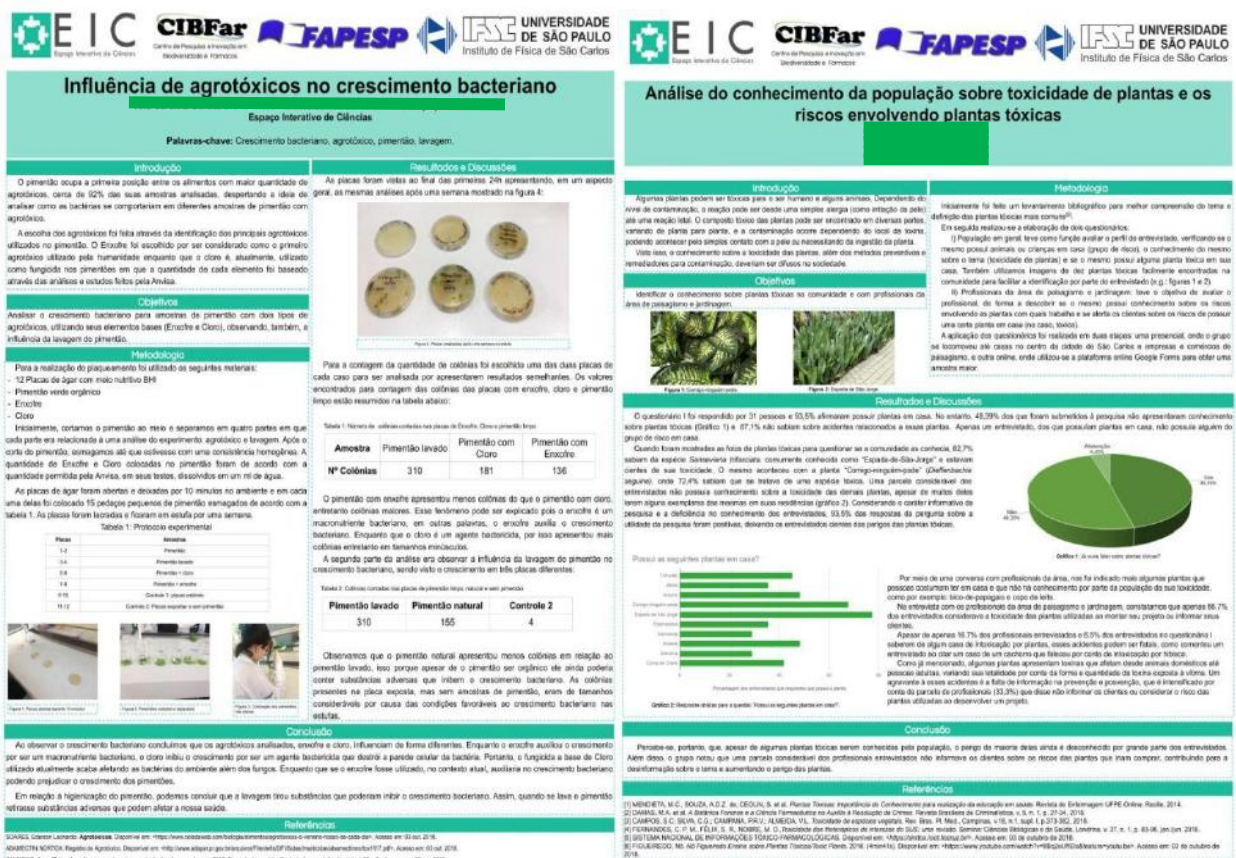
The work 2 named Analysis of the knowledge of the population about the toxicity of plants and the risks involving toxic plants, aimed to identify and analyze the knowledge about toxic plants of the population of São Carlos, and specifically, of professionals in the landscaping area and gardening. The sample referring to the population of São Carlos was 31 people, and the students identified that although most of the interviewees know that the plants they have at home are toxic, they are unaware of the danger they bring, and even the gardening professionals, most do not inform their customers about the risks that such plants can bring to health.

Lima, Do Bú and Araújo (2014) emphasize that working with Environmental Education also guarantees advances in terms of health, since intoxication by plants often happens due to the population's lack of knowledge about the toxic potential of the species, which was verified in the students' work. Thus, working with this theme enhances students' sense of criticality, because it demonstrates that the population does not know the plants they have at home, and sensitizes them to increasingly try to spread ideas within the social perspective.

The work 3 named Influence of pesticides on bacterial growth, aimed to analyze bacterial growth in pepper samples using two types of pesticides, one with sulfur in its composition and the other with chlorine, as well as analyzing the influence of washing peppers in bacterial growth. After the experimental analyses, the students realized that the pesticides that contained sulfur and chlorine acted differently in the samples, since the sulfur helped in the growth of the bacteria, the chlorine, in turn, inhibited their growth.

As well as, with regard to hygiene, the students noticed that when the peppers are washed, the water removes substances that inhibit bacterial growth, which is a positive thing, since it eliminates substances that can affect our health. Through the students' verbal discourse, it is noted that this work favored students to understand the influence of pesticides, and to reflect on healthier health habits and awareness of the pollution generated by pesticides. In Figure 1 we can see two posters made by the students and presented at the event.

Figure 1 - Works 1) and 3) presented at the EIC Science Club Workshop.



Source: Author (2022).

In the work entitled "Influência de Agrotóxicos no crescimento bacteriano", as shown in Figure 1, the students studied bacterial growth in pepper samples using samples contained in twelve Petri dishes. Thus, the students understood a little about the presence and influence of pesticides on vegetables, and orally highlighted issues inherent to the field of the agro sector. In addition, as shown in Figure 1, in the work entitled "Análise do conhecimento da população sobre a toxicidade de plantas e os riscos envolvendo plantas tóxicas", the students carried out a study to analyze the population's knowledge about the toxicity of the plants they have at home. In fact, the main results showed that people are unaware of what they have at home, and a highlight is that people buy plants for their physical beauty, without really knowing their importance or properties.

During the Science Club workshop held in 2019, six works were developed, whose themes were: 1) Cannabis sativa; 2) Pesticides in honey; 3) Organic slurry in the soil; 4) DNA extraction; 5) Unconventional food plants; 6) Solar radiation; 7) Plant growth and development; 8) Solar incidence on the photovoltaic plate.

The work 3) Analysis of Bio Slurry as a biofertilizer in plants aimed to analyze the macroscopic effects on plant development, such as: vertical growth, horizontal expansion and the emergence of new seedlings or fruits, through fertilization by biofertilizer from bio slurry obtained from a compost bin. In the conclusions obtained by the students, they highlighted that the compost bin is a very positive alternative for the reuse of organic waste, since it has a simple and low cost assembly, as well as it does not have a bad smell, so it can be used in homes. As for the main results obtained, the students highlighted that bio leachate brought some benefits to plant growth, such as: the remarkable growth of shoots, well-established branches and the great adaptation to climate change.

Within the discourse of the club members, they highlighted that one of the purposes of carrying out this work was to analyze the feasibility of developing composters to encourage more sustainable practices. This discourse met one of the

purposes of environmental education, which is to raise awareness of healthier and more sustainable habits and practices, and the students effectively adopted this concept, as they had in mind to make the visiting public aware of making such an initiative viable.

The work 1) named From myth to medicinal use: A case study about the population's knowledge about the pharmacological use of marijuana, aimed to analyze the knowledge of the population of São Carlos about the medicinal use of Cannabis sativa, and to verify if this, when associated with marijuana, generates aversion and only negative implications. The students interviewed 76 people, from the most varied professions and backgrounds, they even interviewed researcher Yvonne Primerano Mascarenhas from the São Carlos Institute of Physics, one of the most respected Brazilian chemists. According to the information collected, only a little more than half of the people knew what cannabis was, and more than eighty percent knew what marijuana was, and more than 60% knew the harmful effects of its use, but a smaller amount of people knew The Benefits. Many did not know that Cannabis was used in the treatment of some diseases, and also that ANVISA allows its use for medicinal studies. So, in general, people still associate cannabis with something only negative due to marijuana, associating it with addictions and death. In figure 2 we can see two posters made by the students and presented at the event.

Figure 2. Work 3) presented at the 2018 Workshop and work 1) presented at the 2019 Workshop.



Source: Author (2022).

In the work entitled "Ação da Chuva Ácida em Frutos" as shown in Figure 2, the students attested to the effects of Acid Rain on the coating of fruits, within a closed system (involving biological materials - fruits, and chemicals - reagents), and visualized the great damages that the emission of polluting gases can bring. As shown in Figure 2, in the work entitled "Do mito ao uso medicinal: Um estudo de caso acerca do conhecimento da população sobre o uso farmacológico da maconha" it

can be observed, through a quantitative analysis, that the population of the city only attributes bad qualities to Cannabis, associating it only with marijuana.

In work 2) named Identification and quantification of pesticides in common and organic honey, which was even chosen as the best work developed and presented in the 2019 edition, the students aimed to identify, quantify and compare the presence or absence of Clothianidin, Imidacloprid and Thiamethoxam pesticides, in samples of organic and common honey, sold in a supermarket in the city of São Carlos. Such samples were analyzed using the technique of High Performance Liquid Chromatography (HPLC) or High Performance Liquid Chromatography (HPLC) coupled to UV-Vis Spectrophotometry. Through a literature review, the students highlighted the environmental harm inherent to the excessive use of pesticides, and also to the health of bees and humans. The main conclusion obtained by the group was that it is not always that the organic product will present the best cost benefit, since pesticides were also found in the samples of organic honey.

In work 7) entitled Action of acid rain on the morphophysiological parameters of *Phaseolus vulgaris*, the students aimed to analyze the influence of the emission of polluting gases in the atmosphere on plant development and growth in the morphophysiological aspects of *Phaseolus vulgaris* (beans), that is, whether the emission of polluting gases can inhibit or hinder the growth and development of plants. In this work, the students divided the experimental part into five weeks and five samples, as shown in Table 1.

Table 1 - Experimental script for group 7.

Sample	First week (treatment)	Second week (treatment)	third week (treatment)	fourth week (treatment)	fifth week (treatment)
Sample I	acid solution	acid solution	acid solution	acid solution	acid solution
Sample II	acid solution	acid solution	acid solution	Potable water	Potable water
Sample III	Potable water	Potable water	Potable water	acid solution	acid solution
Sample IV	Potable water	Potable water	Potable water	Potable water	acid solution
Sample V	Potable water	Potable water	Potable water	Potable water	Potable water

Source: Author (2022).

As shown in Table 1, each week what was done with the samples was modified. The acid solution that the students used was sulfuric acid, and this was diluted until a pH of 5.5 was obtained, this acid is one of the main responsible for acid rain. In sample I, the beans did not grow since the medium was fed with acid from the beginning, in sample II there was also no growth of the vegetable, since the drinking water was not able to reverse the damage already caused by the acid, in sample III, the plant grew and was developing, but, after receiving the acid solution, it started to show spots and die, the same happened in sample IV, in sample V the plant developed, grew and it was possible to observe many physiological characteristics his. The main conclusion reached by the group was that acid rain is capable of inhibiting and harming plant growth, therefore, in industrial park areas, there are precarious conditions for plants to exist. In the verbal speech, it is noted that the students strongly highlighted the issue of environmental awareness and the problems to the environment generated by the accelerated process of industrialization.

It is observed that, even if unintentionally, the seven works highlighted here, focused or addressed issues inherent to the field of Environmental Education, contributing to the formation of young people more aware of the problems that the world has been going through. As the club members are free to choose the theme and also to approach the work, the activities carried out in the workshop showed that they are capable of working with awareness and awareness.

With students being free at school, it is noted that they are growing up realizing the problems that surround them and affect their daily lives, and wanting to study problems with environmental themes, demonstrates that there are reflections about a conscious formation of sustainable practices. The results obtained and expressed in this article are in line with the perspectives of Mendes (2018) since the environmental themes addressed within the works favored students to recognize the importance of the environment and natural resources as essential objects for the quality of life, as well as enhancing the sense of awareness, responsibility and appreciation of the environmental culture, the healthier and more sustainable way of life and the recognition of the importance of preserving the environment for the preservation of life.

4. Conclusion

This article, in general terms, aimed to analyze seven works developed and presented at the EIC Science Club workshop. The objective was to analyze how the environmental theme was worked within each project and how this favored the development of the perspectives of Environmental Education, that is, to analyze if the developed works could indicate signs of young people more aware of environmental problems, the sensitization in the search for improvements, and the diffusion of ideas in favor of the environment.

Certainly, in all the works, it is noted that there were indications of the formation of a sense of awareness and sensitization about environmental causes. What was observed with the developed practices and, in addition, in the students' speech at the time of exposition of the work was that they really realized the importance of adopting more sustainable practices and that it is necessary for everyone to have an understanding of environmental problems, so that, it is necessary to have the dissemination and awareness of the entire population.

Therefore, it can be said that as highlighted in the official curricular documents and educational legislation, Environmental Education is not a mandatory subject within the curriculum in Brazilian schools and institutions, but it must be worked on in an integrated and transversal way within all schools and institutions disciplines and educational activities. The EIC acts as a space for non-formal education, and, due to the activities of the workshop, it played, in the two years of analysis, a fundamental role in the formation of young people aware of environmental issues.

Finally, for future research it may be necessary to understand how the development of these projects works within public Basic Education schools, where teaching is mandatory and, more than that, to understand the efficiency of the development of such projects in peripheral schools, to understand its feasibility and influence.

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