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Extensionist Actions in an Environmental Education Discipline: an Extension Curriculum Experience

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ABSTRACT

Introduction/Objective: We have written this work with the aim of promoting reflection on an experience of extension insertion in the curriculum in an undergraduate course. The subject of Environmental Education was taught in remote format during the COVID-19 Pandemic, at a public university in southern Brazil. **Methodology:** This research, with a qualitative approach of exploratory nature, presents eight extension actions for environmental awareness conceived and implemented by students from undergraduate courses during two academic semesters. In this study, we have highlighted two challenges: the first, working remotely, and the second, teaching a discipline with a commitment to carrying out extension actions by undergraduates organized in teams. **Results:** The results revealed that, in addition to the protagonist role of students, the extension actions contributed to the dissemination and awareness of issues of environmental interest. **Conclusion:** We concluded that an extensionist discipline, although it requires a greater dedication of both professors and undergraduates, configures itself as a possibility to insert university extension in the curriculum of undergraduate courses, to promote a comprehensive education of students and to contribute to the transformation of society.

KEYWORDS

University extension. Environmental education. Higher education.

Ações Extensionistas em uma Disciplina de Educação Ambiental: uma Experiência de Curricularização da Extensão

RESUMO

Introdução/Objetivo: Este trabalho foi escrito com o objetivo de promover reflexão sobre uma experiência de curricularização da extensão em uma disciplina de graduação. A disciplina de Educação Ambiental foi ministrada no formato remoto durante a pandemia da COVID-19, em uma universidade pública do sul do Brasil. **Metodologia:** A pesquisa com abordagem qualitativa de natureza exploratória apresenta oito ações extensionistas de sensibilização ambiental idealizadas e implementadas por estudantes de graduação durante dois semestres letivos. Neste estudo são destacados dois desafios: o primeiro, trabalhar de forma remota, e o segundo, ministrar uma disciplina com o compromisso de realização de ações de extensão pelos graduandos organizados em equipes. **Resultados:** Os resultados revelaram que, além do protagonismo dos estudantes, as ações de extensão contribuíram para a divulgação e sensibilização quanto a temáticas de interesse ambiental. **Conclusão:** Entende-se que uma disciplina de caráter extensionista, embora exija uma dedicação maior tanto de professores quanto de graduandos, se configura como uma possibilidade viável de inserir a extensão universitária no currículo dos cursos de graduação, de promover a formação integral dos estudantes e de contribuir para a transformação da sociedade.

PALAVRAS-CHAVE

Extensão universitária. Educação ambiental. Ensino superior.

Acciones Extensionistas en una Disciplina de Educación Ambiental: una Experiencia Curricular de Extensión

RESUMEN

Introducción/Objetivo: Este trabajo fue escrito con el objetivo de promover la reflexión sobre una experiencia de inserción de la extensión en el currículum en un curso de pregrado. La asignatura de Educación Ambiental se impartió en formato remoto durante la Pandemia de COVID-19, en una universidad pública del sur de Brasil. **Metodología:** La investigación con enfoque cualitativo de carácter exploratorio presenta ocho acciones de extensión de la conciencia ambiental concebidas y implementadas por estudiantes de graduado universitario durante dos semestres académicos. En este estudio se destacan dos retos: el primero, trabajar de forma remota, y el segundo, enseñar una disciplina con el compromiso de llevar a cabo acciones de extensión por parte de estudiantes de pregrado organizados en equipos. **Resultados:** Los resultados revelaron que, además del rol protagónico de los estudiantes, las acciones de extensión contribuyeron a la difusión y sensibilización de temas de interés ambiental. **Conclusión:** Se concluye que una disciplina extensionista, si bien requiere una mayor dedicación tanto de profesores como de estudiantes de pregrado, se configura como una posibilidad de insertar la extensión universitaria en el currículo de los cursos de pregrado, de promover una formación integral de los estudiantes y de contribuir a la transformación de la sociedad.

PALABRAS CLAVE

Extensión universitaria. Educación ambiental. Enseñanza superior.

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Introduction

To face the enormous challenges that the current environmental issues impose, there is need for an individual and collective reconstruction and, for this, the educational processes are fundamental. Environmental Education (EE) emerges as an essential dimension of education (SAUVÉ, 2005) and is equivalent to an educational field of formation and transformation of mentalities, values, attitudes, ways of thinking, of being, of positioning, aiming at the adoption of a way of acting in the perspective of building a more sustainable world (LEFF, 2012).

In Brazil, Environmental Education is in the process of consolidation as an educational and environmental field, still reflecting many theoretical and practical disputes of different social groups (AGUDO; TEIXEIRA, MAIA, 2015). Currently this configuration of the field indicates the existence of different environmental educations that today face each other in the defense of their principles and practices. Even though it is a field in dispute, it has been seeking to establish itself over time through different spaces, whether academic or political-institutional. In this perspective, Sauv  (2016, p. 294) points out that "Environmental Education has the task of building an environmental identity that can bring meaning to our being in the world, enabling a belonging to the living environment and promoting a culture of engagement.

Higher Education Institutions, for being directly involved in the process of training professionals who integrate society and who take their learning to many people, have the role of instrumentalizing students beyond scientific knowledge, valuing the social practice, including its environmental dimension. Thus, they need to be in continuous reflection about the paths and directions they should take, which includes the importance of considering the inclusion of the study of environmental issues as one of the alternatives to "[...] enable resources capable of disseminating, in universities, a new way of understanding the world" (KRAMMEL; BALDIN, 2017, p. 3).

Regarding the presence of Environmental Education in university education, Leff (2001) signals that there are numerous possibilities of changes for Higher Education and that these changes can be oriented towards an environmental rationality. In this sense, it is important to highlight that both the presence of environmental issues and Environmental Education itself in the curricula should be supported and structured to consider the relationships that the individual builds with others, with nature and with himself (AMARAL, 2018). The integration of the environmental theme as an educational process in academic education still needs clarity as to its understanding in the present, comparing its characteristics with past times and anticipating future scenarios. In the process of (re)thinking, especially the society-nature relationship, it will be possible to adjust trajectories, "reformulate structures and critically position oneself before the forms of knowledge production and the historically built curriculum" (RINK, 2014, p. 55).

Extension has always been part of the three pillars of the university (teaching, research, and extension) - commitments of Higher Education Institutions, which have, in theory, similar importance both in the teaching career and in the training of academics (BENETTI; SOUSA;

SOUZA, 2015). The third National Education Plan (2014-2024) ratifies the universalization of Extension and, in 2018 (BRASIL, 2018), the National Education Council (CNE), through Resolution No. 7 of December 18 of this same year, established the Guidelines for Extension in Brazilian Higher Education, regulating strategy 12.7 of Law No. 13.005/2014 (BRASIL, 2014). In this resolution, the CNE regulates in Art. 2 "the academic extension activities of undergraduate courses, in the form of curricular components for the courses, [...]". With this, it provides for the compulsory nature of extension activities, which "must compose, at least, 10% (ten percent) of the total student curricular workload of undergraduate courses, which should be part of the curricular matrix of the courses" (BRASIL, 2018), which has challenged Brazilian higher education institutions to remodel their extensionist practices (IMPERATORE; PEDDE; IMPERATORE, 2015).

Still, in Art. 6 item III, Resolution No. 7/2018 of the CNE provides for the promotion of initiatives that express the social commitment of higher education institutions with all areas, providing that the university student meets existing social demands and new experiences in partnership with the community. In this sense, the extension, besides contributing to the comprehensive training of undergraduates, encouraging them to be critical and responsible citizens (BERTONI; ANTIQUEIRA, 2020), should promote a transformative interaction between the institution of higher education and other sectors of society, with actions anchored in an interdisciplinary pedagogical process that addresses the political, cultural, scientific and technological aspects (BRASIL, 2018).

Considering the importance of Environmental Education for the construction of an environmental identity of students and the community, Environmental Education understood as an area of knowledge or as a fundamental discipline for the development of critical sense is consistent with the objectives of university extension, as an action in which "[...] the community ceases to be passive and becomes an active participant in the process of development of extension work, in addition to the construction of knowledge by the teacher / academic in this activity [...]" (MANCHUR; SURIANI; CUNHA, 2013, p. 336).

It is worth noting that the year 2020 marked the world in its historical line with the occurrence of a viral pandemic. It is COVID-19, "an infectious disease caused by the new coronavirus, first identified in December 2019 in Wuhan, China" (PAHO, 2021). In March 2020, COVID-19 was characterized by the World Health Organization as a pandemic. Combating this disease demanded extreme social distancing measures, changing the habits of the collectivity, such as school education, for example. Faced with this challenge, universities and other educational institutions have interrupted face-to-face classes and started using digital educational platforms. This practice, called 'emergency remote teaching', which demanded curricular reorganization, adequacy of pedagogical strategies and use of technologies (NEZ; FERNANDES; WOICOLESKO, 2022), was the teaching system during the experience reported in this paper.

The present work presents the development of eight short-term projects for environmental awareness carried out during two school semesters, with the participation of 22 undergraduate students enrolled in the discipline of Environmental Education. It aimed to analyze an experience of curricularization of extension carried out in a compulsory discipline

of two undergraduate courses, in times of social distancing imposed by the COVID-19 pandemic.

Research Description

This research was conducted during the development of the subject of Environmental Education (EE), taught for the courses of Technology in Environmental Processes and Chemistry Degree at the Federal Technological University of Parana (UTFPR) - Curitiba campus. The subject, which is compulsory for both courses, has as its menu: Principles and theoretical foundations, teaching resources, awareness raising techniques, project creation and execution. In recent years, the course has been developed with an extension project linked to it. This extension project covers the environmental awareness actions developed with the external community by students enrolled in the discipline, which are registered for formalization in the higher education institution. The institution, through public notices, has encouraged extension projects linked to undergraduate disciplines, with a view to curricularizing the extension. The projects until 2019 were being developed with various audiences, highlighting educational institutions, UTFPR outsourced employees, and companies where students were working professionally or doing internships.

During the first and second academic semesters of 2020 (developed, respectively, from August to November/2020 and from February to May/2021), the subject of EE was taught in the remote teaching modality, due to the restrictive measures of social coexistence resulting from the COVID-19 pandemic. Activities had to be adapted for the remote system, including the short-term projects for environmental awareness that the students developed as their final work. The following is a brief account of the activities carried out in the course.

At the beginning of each semester, the students did, asynchronously, the guided reading of texts, scientific articles, and laws, which provided a theoretical background on the concepts, foundations, and goals of Environmental Education. In synchronous class, an interactive activity took place in which there was a moment of discussion to raise potentials, weaknesses, and challenges to be considered in the development of short-term projects for environmental awareness.

Next, the students were asked to observe the surrounding social and environmental reality, to reflect on target audiences for the EE project (considering the feasibility of the educational action), and to select themes in environment, health, and society that were relevant to the course development period and to the defined target audience. At this point they grouped themselves into working teams. The students were then guided to do a literature search on the chosen theme, to recall topics related to the theme and find environmental education works with similar theme and target audience, for background.

Afterwards, the students performed synchronous activities for group reflection on strategies to be used with the target audience, seeking to sensitize, inform and/or guide them about the chosen theme. There was guidance that the forms of approach, methods, materials,

and didactic resources prepared should be compatible with the age group, the context, and the probable previous knowledge that the target audience had about the theme. The students were instructed to prepare the content to be addressed in the educational action, discussing what would be essential and the clearest sequence of presentation of the topics and activities. They should also determine how the monitoring and evaluation process of the action would take place, that is, what would be the ways to measure whether the objectives were met.

Based on the research about the chosen theme and the profile of the target audience, as well as the definition of the topics that would be covered and the strategies that would be used, the short-term environmental education project was previously presented among the students, to detect aspects to be modified and/or improved. After the project was designed according to the suggestions of the teacher and classmates, it was applied. It is worth mentioning that the application time was short (around two to three weeks) since the project was developed entirely within one school semester. As a result of the social distance, all the projects of the two semesters of 2020 were applied entirely remotely.

When possible, feedback was obtained from the public participating in each extension action about the appropriateness of the content and methodologies used and the impacts that the extension action would provide in their lives, which helped in the discussions. At the end of the semester, during a synchronous class, the students presented to the whole class their experiences as well as the results obtained with the project. The challenges and learning were shared in a conversation circle.

Method

To achieve the proposed objective of investigating an experience of curricularization of the extension in an undergraduate course, we chose research with a qualitative approach of exploratory nature. According to Gatti and André (2013, p. 30) "qualitative research came to constitute an investigative modality with the proposition of breaking the protective circle that separates the researcher from the researched, since as a human and social activity inevitably brings with it the load of values, preferences, interests and principles that guide the researcher.

In the process of data analysis, there are several paths that can be followed, among them, content analysis which, according to Minayo, (2014, p. 301) is "a generic expression that designates the treatment of data and can be employed for qualitative data." In this type of analysis, there are some approaches, classified from the type of categorization being representational analysis, expression analysis, enunciation analysis and thematic analysis. In thematic analysis the central concept is the theme and, for Bardin (1979, p. 105), "the theme is constituted by the unit of meaning that is naturally released from the analyzed text according to criteria related to the theory that serves as a guide for the reading". Working with thematic analysis means discovering the nuclei of meaning that make up the communication and whose presence, or frequency of appearance, may mean something for the chosen analytical objective.

After a floating reading of the various texts related to the development of the subject during the two semesters evaluated, the research corpus was defined as being formed by eight projects that were applied and had their reports sent at the end of each class period. The discipline's menu and the researcher's (first author) logbook were used to discuss the experience of extension curricularization. Still in the pre-analysis stage, from the detailed reading of the selected projects, three initial indicators were elaborated for analysis, being: (a) the motivations for choosing the theme; (b) the target audience and the way the materials were forwarded; (c) the group participants' understanding about which resources and strategies could be used in the sensitization project.

In the second stage of the content analysis technique, called material exploration, the works were reread and text fragments were extracted, organized, and then identified, through inferences, the meaning nuclei. The nuclei of meaning located were analyzed considering broader themes, were regrouped and, from this new organization, formalized categories were elaborated in texts to account for the themes and articulate them with the data from the logbook and the course's menu.

Interpretative syntheses were elaborated articulating the themes with the objectives and assumptions of the research, aiming to have arguments to discuss the experience of curricularization during the development of a discipline of Environmental Education in the university context in times of the COVID-19 pandemic.

Results

The results are related to the study of eight extension actions carried out remotely and their respective reports presented as part of the undergraduate discipline. In performing the interpretative movements of the content analysis, four categories were established, three of which were from the initial indicators at the end of the pre-analysis. The fourth category emerged in the process of further reading the projects and the research logbook. The four categories were: (1) the choice of theme resulted from the group's greater familiarity with the subject; (2) the target audience and the way of forwarding the materials were defined by the situation of social distance due to the pandemic of COVID-19; (3) the report of the students in the group about the production of strategies and their dissemination aimed at sensitizing people about the theme/subject developed in the project; and (4) the contribution to environmental rethinking during the realization of the projects and their potential for continuity.

Regarding the first category of analysis 'the choice of theme resulted from the group's greater familiarity with the subject', it was possible to understand that the choice of theme/subject by the students (in groups) took into account their perceptions about the relevance of the theme in the current scenario, affinity and interest in the theme, and possibilities in the face of the situation of social distance. Since Environmental Education is understood as a plural field and, therefore, it allows several educational approaches, projects with varied themes were encouraged in the discipline. According to the discipline routing, the students discussed and chose the theme of the short-term project in a process that involved negotiations and understandings among the participants of each team, and the teacher

responsible for the discipline tried to help in the direction and/or delimitation of overly broad themes. Of the works evaluated, the theme Domestic Solid Waste was the most addressed, bringing in each team delimitations for its approach (Chart 1).

Table 1. List of short-term projects for environmental awareness of the external community, developed by students of the discipline of Environmental Education, during the first or second semester of 2020.

Project	Subject/Theme	Target Audience
1	Solid Waste - Green Routine	External and internal communities (open)
2	Solid waste - activities on waste separation and consumerism	Students in their 2nd year of elementary school (6 to 7 years old)
3	Solid waste - separation and correct disposal of solid waste	Students of the 2nd year of Integrated Technical Course in Informatics
4	Solid waste - our production and our responsibility	Community of a Spiritism Center
5	Water resources - water crisis in our daily life	Students and employees of a university community (directed) and public (social network)
6	Pandemic and impacts on the environment - positive and negative aspects	University students (initially), also reaching social network (open)
7	Food cultivation - proposal for growing organic food at home	5th grade students (9 to 11 years old)
8	Sensitizing and encouraging meatless Monday	External and internal communities (open)

Source: Authors

It is noteworthy that not only undergraduate students, but also environmental educators in general, have devoted increasing attention to the theme of Urban Solid Waste, especially in school activities, due to the 'more apparent' universality of the theme (EIGENHEER, 2008). In fact, the Solid Waste theme has proven to be a priority not only in Brazil, but also on a global scale, recognized since the Rio 92 Conference as a challenge especially of urban regions (JACOBI; BESEN, 2011). Regarding this issue, the role of Environmental Education goes beyond discussing the impacts caused by solid waste, promoting a debate about its generation conditions and, especially, about the need to rethink consumption patterns. In this sense, Lima (2015, p. 55) states that, to work the theme of solid waste in a critical perspective, it is necessary to consider the "inherent complexity articulating the most apparent environmental dimension to other social, political, economic and cultural dimensions less evident of the problem [...]".

As for the second category, enunciated as: 'the target audience and the way of forwarding the materials were defined by the situation of social distancing due to the COVID-19 pandemic', for the development of the short-term projects it was the undergraduate students themselves who selected the project participants and undertook, in a collaborative process, some form of planning for contacting them.

As shown in chart 2, projects 1 and 8 considered searching for the target audience through social networks (Instagram); projects 2, 3 and 7 had the collaboration of educational institutions; projects 4 and 6 used WhatsApp groups to reach the target audience. Project 5 used an institutional email list to reach its audience. According to the report in the researcher teacher's (and subject teacher's) logbook, "the students' protagonist actions were valuable in the

sense of seeking new ways to raise awareness about the restrictions of social contact imposed by sanitary conditions.

Table 2. Theme, forms of dissemination (to contact the target audience) and awareness strategies used in the short-term projects for environmental awareness, developed in the discipline of Environmental Education in the two semesters evaluated.

Project	Subject/Theme	How it was disclosed	Awareness Strategy
1	Solid Waste - Green Routine	Instagram (construction of own profile) for dissemination to a diverse audience	Instagram profile: cards, tutorial videos, short videos, polls, quizzes, question boxes
2	Solid waste - activities on waste separation and consumerism	Forwarded by the school (printed material) to the students	Board game, short video, short quiz about the proposals
3	Solid waste - separation and correct disposal of solid waste	Forwarded by the educational institution (remotely) to the students	Diagnostic questionnaire, podcast, final questionnaire, didactic material (booklet)
4	Solid waste - our production and our responsibility	Invitation by WhatsApp for a virtual lecture aimed at the religious community	Virtual lecture for the religious community
5	Water resources - water crisis in our daily life	Invitation by institutional e-mail and social networks, especially for UTFPR students and servers	Dissemination (via e-mail) of informative folder and survey
6	Pandemic and impacts on the environment - positive and negative aspects	WhatsApp groups starting with university students and recommending dissemination	Diagnostic questionnaire: e-mail informing about the main results of the questionnaire (infographics) to raise awareness
7	Food cultivation - proposal for growing organic food at home	Forwarded by the school (materials for practical activity and videos) to students	Informational video and video containing step-by-step activity (available on YouTube), digital booklet, material for practical activity, brief survey
8	Sensitizing and encouraging meatless Monday	Dissemination through Instagram (using personal profiles) to a diverse audience	Cards, videos containing recipes, polls

Source: The authors

The proposal to apply the short-term projects involving the external community, even with the social distancing imposed by the COVID-19 pandemic, represented a challenge for the students. Some of them declared this in the project report and/or in their self-evaluation. The impossibility of having developed the project face-to-face was considered, for four groups, as one of the main difficulties encountered. However, other students considered as positive the fact of having been instigated to think of new approaches to apply the project remotely, and even of having obtained a greater reach for the actions. It is worth pointing out that, although the experience reported in this article took place during the emergency remote teaching period, it is entirely possible and appropriate to carry it out in a face-to-face format.

The third category of analysis was formed considering 'the report of the students in the group about the production of strategies and their dissemination aimed at raising awareness about the theme/subject developed in the project'. Among the dissemination/awareness-raising

strategies carried out by undergraduate students in their projects, the use of Information and Communication Technologies (ICTs) in Education throughout the preparation and application of the projects for different audiences stood out. About 90% of the groups prepared polls/questionnaires/quizzes, making use of platforms such as Google Forms, Instagram or Mentimeter, or even printed text. Some groups adopted this strategy to collect information about the prior knowledge and/or habits adopted by the target audience, and other groups to evaluate the target audience's perception of the project, the absorption of the information shared, and/or the change in attitude brought about by the awareness raising. Videos/podcasts were strategies adopted by more than 60% of the groups, as a way to present data and/or tips on the subject addressed. According to Morán (1995, p. 28 and 29), video combines several languages, but "it starts with the sensorial, the emotional, and the intuitive, to reach the rational later". That is, videos, for being dynamic and most of the time directed "before the affectivity than the reason", are effective tools to sensitize children, adolescents, and adults (MORÁN, 1995, p.29).

Regarding the use of social networks in the projects, an important piece of information refers to the age of the undergraduate students completing the discipline in the evaluated academic periods, which, being 29 ± 8 years old (mean \pm standard deviation), is primarily within the age range considered most assiduous on the social network Instagram (HOOTSUITE, 2019). Studies prove that the Instagram social network has been widely used by college students as a source of information (TARULLO, 2021).

The fourth category of analysis was enunciated as 'the contribution to environmental rethinking during the implementation of the projects and their potential for continuity'. The students who proposed projects involving social media more strongly demonstrated, in the propositions and throughout the development of the works, skills to deal with the functionalities of the Instagram platform. For each project development evaluation meeting they brought numbers and quoted comments from the public. The participants of project 1 reported that they "made more posts than they had initially planned, aiming to expand their audience and maintain interest in the subject". Project 8, which aimed to encourage a reduction in meat consumption during the week, had many views and interactions (Instagram) during less than two weeks, when it was being monitored.

In the students' evaluation, it was highlighted the communication reach amplified by the remote teaching system, the social networks and other facilities provided by the internet. Some extensionist actions managed to reach people who were geographically distant, citing as an example people living in cities in the interior of Paraná and even in the state of Amazonas. Moreover, an interesting fact to consider is that the environmental awareness materials that were made available on social networks have the potential to continuously reach different people, even after the end of the school semester, a possibility provided by the digital age.

The students considered the 'lack of direct communication' with the audience for which their awareness-raising project was intended as their biggest challenge. They also considered that they needed more time to plan the action to be taken, and especially to prepare the resources

(folders, videos, materials). There was no direct recognition that the participants of the groups assessed the potential for continuity of the awareness-raising process with the repercussion of the materials and postings prepared during the short-term project.

According to the researchers, the application of the short-term project provided students with a university extension experience in which they could share knowledge with the external community and practice the use of communication and interaction strategies suitable for different target audiences, besides collaborating to transform the socio-environmental reality. The fact that the course is extensionist offered an additional motivation to carry out the proposed activities, as the students experienced their project leaving the university context and 'making a difference' in a community, even if on a small scale. In this sense, it is worth mentioning that the out-of-class experience promoted by the extension, by demanding the application of knowledge (IMPERATORE; PEDDE; IMPERATORE, 2015), tends to contribute to the development of a more systemic knowledge and the acquisition of a differentiated view of the world (NUNES; VIEIRA, 2012), which is certainly of great value to the students involved.

Moreover, the application of the project allowed undergraduate students to verify in practice the feasibility of their project and adjust circumvent difficulties that may have arisen, which certainly contributed to the development of skills and competencies necessary for the exercise of their profession in society. In fact, the shared responsibility between teacher and students gives protagonism to students, which enhances their professional training (NUNES; VIEIRA, 2012).

Finally, it is worth noting that, despite the importance of extension as a means of consolidating the social commitment of the university and its contribution to the civic education of academics, there are still many barriers to its implementation (BERTONI; ANTIQUEIRA, 2020). Despite these challenges, some universities are quite advanced in the process of insertion of extension actions in the curricula of undergraduate courses, citing the experiences reported by Benetti, Sousa and Souza (2015) and by Vêras and Souza (2016), while in the higher education institution evaluated in this study, the initiatives to integrate the extension in undergraduate courses have still been isolated, being restricted to a few disciplines taught by teachers who have interest and/or ability in university extension. Thus, it is noteworthy that the experience presented in this article consists of a viable possibility of inserting university extension into the curriculum of undergraduate courses and can be adapted to different contexts.

Final considerations

Environmental Education as an extensionist discipline was developed in the understanding of the importance of the culture of engagement as a tool for the achievement of citizenship, since it presents its contribution to form social actors committed to new attitudes, and the development of a look towards the collectivity, which can be a nation, a municipality, a region, or an institution.

In this work, the authors emphasize that the development of extensionist actions in the discipline of Environmental Education, essential for the training of future professionals, suffered a drastic reduction of possibilities when migrating instantly from the classroom system to the remote system, also requiring greater dedication of teachers and a great willingness of students to lead actions that sought to sensitize the community to emerging environmental issues, therefore, issues of daily life and future.

Finally, it is understood that the extension integrated into the curricular matrices of undergraduate courses represents an achievement of the defenders of university extension and, although it is a challenge, it is configured as a great opportunity for higher education institutions to exercise their social commitment by promoting a transformative education in the sense of changing points of view and giving new meaning to society's attitudes, breaking down barriers, stereotypes and prejudices and regaining the conception that scientific knowledge is of fundamental importance in the discussion of contemporary problems of society.

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