URBAN GARDEN PROJECT: A PROJECT-BASED APPROACH APPLIED TO EXTENSIONEXPERIENCES AS A CURRICULAR COMPONENT

PROJETO HORTA URBANA: ABORDAGEM BASEADA EM PROJETO APLICADA EM VIVÊNCIAS DE EXTENSÃO COMO COMPONENTE CURRICULAR

PROYECTO HUERTA URBANA: ENFOQUE BASADO EN PROYECTOS APLICADO EN EXPERIENCIAS DE EXTENSIÓN COMO COMPONENTE CURRICULAR

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ABSTRACT

A resolution approved in 2018 by the Brazilian Ministry of Education defined in the curriculum matrices of undergraduate courses subjects that have an extension curricularization workload, allowing students to combine the content seen in the classroom with practical activities in external communities. In this context, this article presents the project report applied in the Extension Experiences curricular component, as well as the activities carried out, the procedures and the results of the application, with an expansion of the content displayed at the 2023 Sustainable Design Symposium. The proposal aimed to create a documentary and an awareness campaign for the implementation of urban gardens in neighborhoods in the city of Joinville (SC), Brazil. To execute the project, the double-diamond design method was chosen, considering the stages discover, define, develop, and validate, in addition to the adoption of an institutional platform for monitoring teachers and students and community participation. Here, we present the materials generated for the campaign and a discussion regarding the significant role played by extension experience activities in academic training.

KEYWORDS

Teaching in Design for Sustainability; Extension Curriculum; Extension Experiences.

RESUMO

Uma resolução aprovada em 2018 pelo Ministério da Educação definiu nas matrizes curriculares dos cursos de graduação disciplinas que possuem carga horária de Curricularização da Extensão, propiciando que os estudantes além dos conteúdos vistos em sala de aula com atividades práticas em comunidades externas. Nesse contexto, este artigo apresenta o relato de projeto aplicado no componente curricular Vivências de Extensão, bem como as atividades realizadas, os procedimentos e resultados da aplicação, com ampliação do conteúdo exibido no Simpósio de Design Sustentável 2023. O objetivo da proposta visou à criação de documentário e campanha de sensibilização para a implementação de hortas urbanas nos bairros da cidade de Joinville (SC). Para a execução do projeto, optou-se pelo método design duplo diamante, considerando as etapas descobrir, definir, desenvolver e validar, além da adoção de uma plataforma institucional para acompanhamento de professores e estudantes e participação da comunidade. Como resultados, aqui se apresentam os materiais gerados para a campanha e uma discussão referente ao papel significativo desempenhado por atividades de vivência de extensão na formação acadêmica.

PALAVRAS-CHAVE

Ensino em Design para a Sustentabilidade; Curricularização da Extensão; Vivências de Extensão.

RESUMEN

Una resolución aprobada en 2018 por el Ministerio de Educación definió en las matrices curriculares de los cursos de grado asignaturas que poseen carga horaria de Curricularización de la Extensión, propiciando que los estudiantes alíen los contenidos vistos en el aula con actividades prácticas en comunidades externas. En ese contexto, este artículo presenta el relato de un proyecto aplicado en el componente curricular Vivencias de Extensión, así como las actividades realizadas, los procedimientos y resultados de la aplicación, con ampliación del contenido exhibido en el Simposio de Diseño Sostenible 2023. El objetivo de la propuesta fue la creación de un documental y una campaña de sensibilización para la implementación de huertas urbanas en los barrios de la ciudad de Joinville (SC). Para la ejecución del proyecto, se optó por el método de diseño doble diamante, considerando las etapas descubrir, definir, desarrollar y validar, además de la adopción de una plataforma institucional para el acompañamiento de profesores y estudiantes y la participación de la comunidad. Como resultados, aquí se presentan los materiales generados para la campaña y una discusión referente al papel significativo desempeñado por las actividades de vivencia de extensión en la formación académica.

PALABRAS CLAVE

Enseñanza en Diseño para la Sostenibilidad; Curricularización de la Extensión; Vivencias de Extensión.

1. INTRODUCTION

The Brazilian Ministry of Education approved a resolution in 2018 that establishes that at least 10% of the curricular workload of undergraduate courses must be dedicated to extension activities (BRASIL, 2018). Therefore, undergraduate courses needed to review their curricular structures to include extension actions. Therefore, subjects were defined with a workload focused on the curricularization of the extension, aiming to allow students to apply in practice the knowledge acquired in the classroom to solve specific demands.

This approach proposes to establish a transformative relationship between the university and society, encouraging the practical application of learning in real situations, contributing to strengthening and evaluating teaching and research, highlighting their relevance to society. Furthermore, it provides a critical assessment of the quality of the knowledge produced, consolidating the interaction between the university and the community (UNIVILLE, 2022).

Considering a classroom experience, this article presents a report on the application of an extension activity in the curricular component Creative Culture Actions for Extension Experimental Project. This component offers to students on the Advertising and Marketing and Cinema and Audiovisual courses at Universidade da Região de Joinville (Univille) an opportunity for curricular innovation by introducing them to university extension activities. Its purpose is to provide students with the experience of real situations, promoting the curricularization of extension through innovation and dissemination of ideas.

In this way, procedures and results of the implementation of an intercourse and interdisciplinary communication project are presented, promoting the students' protagonism, engaging them in a real activity and inserting them in practical contexts that demand the application of communication to disseminate their achievements.

The project demand presented to the students was the development of a publicity campaign for the implementation of urban gardens in the neighborhoods of the city of Joinville, in Santa Catarina, Brazil. Based on this demand, it was decided that the materials to be worked on would be a documentary and awareness-raising materials for distribution by the city hall.

It is understood that urban gardens play a significant role in communities, providing residents with the opportunity to grow fruits, vegetables, and greens for their own consumption and that of their families. Furthermore, surplus production can be sold, generating an additional income source to supplement the family budget. These gardens also have positive impacts on mental health, serving as a form of therapy for some people, while also encouraging the building of friendships between neighbors.

In addition to the personal and local benefits, the practice of urban horticulture contributes to the sustainability promotion, encouraging more conscious agricultural practices. It also plays a crucial role in environmental and food education, highlighting the importance of the connection between people, the local environment and food production.

Thus, the project consisted of creating a stimulus campaign to encourage other neighborhoods in the city to adopt the practice of urban gardening in their own communities. To achieve this, it was essential to visit the city's reference urban garden, understand its operation and benefits, conduct interviews, and interact with the community. The objective was to capture images and testimonies that revealed the community's relationship with the garden, to later synthesize this enthusiasm into graphic and audiovisual pieces.

2. DESIGN FOR SOCIAL INNOVATION

Social innovation can be understood as the phenomenon of proactive collective action to create solutions to community problems, generating new forms of social interaction. Communities are responsible for solving their own problems, sometimes creating alternative economic models of financial exchange (CIPOLLA & MOURA, 2011; BUSCH & PALMÅS, 2017). These new forms of organization are typical of social innovation. Often referred to as creative communities, which can be understood as communities of practice formed by groups of people, for various reasons (both private and public), they develop solutions independently and, ultimately, provide answers to the challenges that society faces in the transition to a more sustainable production and consumption model (MANZINI, 2007).

Creative communities are often organized from the bottom up, that is, by the people themselves affected by a particular problem or request. Thus, they have the potential to create radical innovations in the local system or even disrupt individual and/or system-wide habits regarding the context. In this sense, they question the

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usual ways of producing, consuming, and relating to others (MANZINI, 2007). This disruptive and innovative potential of social innovations finds correspondence in the practice of design towards sustainability, giving the designer a viable participation role in the creative community.

Regarding the role of professional designers in this context, Lima and Martins (2011) state that the design practice itself cannot be separated from the social, environmental, and economic consequences of their activities caused by their action. Therefore, the designer's skill makes him/her one of the main professionals that can contribute to the success of social innovations. Hence the specification of social innovation design. According to Manzini (2017b, p. 76), "Design for Social Innovation" refers to "everything that Design can do to enable, support and guide social change in a sustainable way".

Thus, design for social innovation and the so-called social design have the coordination and interface inherent to their respective definitions. Manzini (2017b) states that social design often sets out to solve extremely problematic social situations–often addressed by philanthropic activities–that neither the official market nor the government can solve (or do not care about the policy to be addressed). Therefore, design for social innovation is not an isolated and independent field. On the contrary, it is linked to reality, reflecting the economic, political, and cultural situation of the given context (LIMA & MARTINS, 2011). In this sense, it is natural to realize that there is a great potential for social change through design projects and through these projects the concretization of the designer's social role.

Even if you do not always have the means or authority to impose your own worldview on others, the ability to influence the functional and aesthetic qualities of artifacts (products, services, systems) is still suitable for professional designers. Thus, the designer can operate purposefully based on the perception of new lifestyle and happiness scenarios in society (MANZINI, 2008). Therefore, it can be said that important questions about the social dimension of sustainability find in the design of social innovation a solid strategy to achieve and expand it. Among many action possibilities, urban agriculture presents itself as a type of social innovation in which the designer can act.

3. URBAN AGRICULTURE

For this study, the concept of urban agriculture is the practice of growing food (fruits, vegetables, herbs) and other plants in urban environments, whether for nutrition or for other purposes. Urban environments can be community gardens, rooftop gardens, public spaces, or even domestic ones. In this way, urban agriculture does not only provide healthy food, but also plays a crucial role in promoting social innovation, contributing to building more sustainable, inclusive, and resilient communities. Urban spaces are used to produce local food, promoting sustainability, food security, and the connection of communities with agricultural production.

Among the qualities that make it different from rural agriculture, urban agriculture is intensely integrated into the social, economic, and ecological ecosystems of cities. In urban agriculture, city residents can be hired as collaborators, have direct relationships with local consumers and can have some influence on policy and urban planning (MOUGEOT, 2000; VEENHUIZEN, 2006; RUAF, 2015). Urban agricultural activities range from purely commercial agriculture to collective initiatives and community gardens and also include domestic production for private consumption.

The benefits linked to urban agriculture practices are vast, including the creation of employment opportunities and additional income sources, food costs reduction, the stimulation of local market growth, the promotion of healthier eating, and the preservation of green spaces in urban areas. However, in several regions of the world, urban farmers have faced social, political, technical, environmental, and economic challenges, highlighting the urgency of increasing investments in public policies aimed at this sector (CUNHA & CARDOSO, 2022).

Being so diverse, urban agriculture creates forms of social interaction for those involved. This leads to a way of occupying and shaping urban space, motivating and promoting other demands, and reverberating political-ideological symbologies (TRACEY, 2007; REYNOLDS, 2009; NAGIB, 2016). According to Moraes (2005), the way cities present themselves helps shape people's social behavior. Thus, the tacit knowledge acquired by people involved in the practice of urban agriculture is both caused and influenced by the configuration of the city. The techniques, behaviors of those involved and the symbolic objectives of each initiative are all adapted, creating its own way of doing things (FENIMAN, 2014).

Urban gardens encompass several typologies, each of them characterized by its own specificities and the objectives they aim to achieve. Particularly, community gardens are predominantly established by families who cultivate them with the purpose of meeting their own food demands and/or to increase family income through the commercialization of cultivated products (SARAIVA, 2011 apud SOUZA, 2018).

By becoming green areas, community gardens become places of interaction, entertainment, and education, providing socio-cultural potential for coexistence, representing a new way of using public space. Furthermore, these spaces are managed and driven by civil society through associations or groups of individuals, standing out for the dynamism and dedication involved in urban agriculture practices (SOUZA, 2018).

The municipal practice of maintaining community gardens in Brazil dates to the 1970s. These gardens play a fundamental role in supplementing the income of families who are involved in urban agriculture, providing essential foods for those who do not have the resources to purchase them on the market. Thus, they contribute to food and nutritional security and enable the population to access fresh and healthy foods, while promoting dietary diversification, as highlighted by Pederson and Robertson (2006 apud SOUZA, 2018).

4. METHODOLOGICAL PROCEDURES

The project developed in this report took place in the second semester of 2022, in the 4th semester classes of the Advertising and Marketing and Cinema and Audiovisual courses, at Univille, in the curricular component Creative Culture Actions for Extension Experimental Project. The class was made up of 26 students, who were divided into free teams. The requested demand consisted of carrying out an awareness campaign to awaken the community's interest in creating urban gardens in the neighborhoods of Joinville.

To develop the proposal, the double-diamond design method (DESIGN COUNCIL, 2011) was used, which considered the procedural model through the steps: discover, define, develop, and validate.

It was necessary to use a digital tool that could record the entire process and monitor the project, as the subject has 50% of its workload of self-study, that is, there were asynchronous moments, in which the teacher was not in the classroom. In this way, an institutional platform was used, and, through the interaction on the platform, it was possible to clarify doubts, guide, and monitor the evolution of the project. The platform also served to maintain close students and the community.

The steps of the procedural model are detailed below:

a) Discover: at this stage, students needed to gather information about the project, searching for the necessary data to carry it out. To do this, they needed to: understand what an urban garden is, by desk research on reference websites, articles and books; identify user information, based on data collected in interviews and secondary information, leading to the creation of Persona tool, to identify the main characteristics of the public to whom the materials would be directed; and get to know the community that has the reference urban garden, through on-site research;

b) Define: based on the collected information, at this stage the important points of the project were defined, such as: the materials to be created to raise awareness and generate engagement in the respective community; the documentary script; ideas about the materials to be used to raise awareness and generate engagement and prepare the documentary script; initial proposals on the institutional platform; and contribution to the ideas of other teams on the platform;

c) Develop: this stage aimed at the development and production of the communication and documentary pieces defined in the previous stage. The details of the materials were defined, and the finalization was carried out;

d) Validate: the last step was applied to validate the proposal with the community. To this end, we sought to present and validate the materials developed, and make the materials available to the community, the city hall, and the municipal business association.

The activities planned to carry out the project were included both in the teaching-learning plan of the mentioned curricular component and in the annual activity report of the courses involved.

5. RESULTS AND DISCUSSION

The Extension Experiences I: Creative Culture Actions for Extension Experimental Project curricular component is applied both in the Cinema and Audiovisual and in the Advertising and Marketing courses at Univille, in the 4th semester classes. As a proposal for an extension experience activity, the demand "Awareness raising

campaign to awaken the community's interest in creating urban gardens in the neighborhoods of Joinville" was selected by the component's professor.

The partner community in this demand was the Adhemar Garcia neighborhood, which started an urban garden as an answer to the challenges of trash accumulation, vandalism, unpleasant odors, and pest infestation in an abandoned plot of land in the neighborhood. Community representatives made efforts, organizing meetings with residents to ensure everyone's cooperation. They carried out a survey to identify those interested in cultivating a plot in the garden, established a regulatory statute to formalize the participants' commitment, sought public resources for cleaning the land, preparing the soil, and fencing. These steps were essential to enable the effective start of the creation of the garden.

Thus, the objective of the project was to create an incentive campaign for other neighborhoods in the city to become aware of the action and adopt this practice of urban gardening in their respective communities, promoting social innovation in the localities. The results are descripted ahead, considering the defined design method.

5.1 Discover

To implement the demand in the classroom, the project teams needed to register on an institutional collaborative platform intended for exchanging ideas, in order to access materials related to the demand and participate in the subject's discussion group (extension). In this group, they were able to interact with other teammates, as well as members of the school community. Then, the teams conducted a research desk to understand the concepts of urban gardening, identifying construction methods and recognizing the actors involved in the process. The teams collected information about the planting and cultivation of fruits and vegetables, at the same time as they identified strategies to continue the proposal.

With the data collected, the students went to the field to recognize the information collected and identify new ones. They carried out an on-site visit to the community garden in the Adhemar Garcia neighborhood, to get to know the community and understand how their garden works. The garden is already established, well organized and has produced good results (Figure 1). The proposal was to have this garden as a reference and as an example

of success in the implementation of other gardens, promoting adherence to the urban garden initiative in other neighborhoods of the city, in addition to using the material developed as a means of publicizing it.

Figure 01: Experience in urban garden in the Adhemar Garcia neighborhood, Joinville, SC, Brazil.
Source: institutional platform (2022).

At this stage, other visits to the community were carried out, depending on the teams' availability, in addition to interaction through the collaborative (institutional) platform.

The challenge was to gather students and the community due to differences in schedules, since classes are held at night and many students work during business hours (including Saturdays), making it an impediment for them to visit the garden and the community. Therefore, the use of the institutional platform was essential to guarantee interaction and collaboration between students, professors, and the community, facilitating communication and making the results obtained through discussion groups available.

Based on the analysis of the data collected, the teams created the persona maps considered in each proposal and the user's journey maps.

5.2 Define

In the second stage, based on the data collected, the important points of the project were defined, such as materials to be used to raise awareness and generate engagement in the respective community, and documentary script. In addition, there were generation of ideas about the materials to be used to raise awareness and generate engagement in the respective community and the documentary script, the presentation of initial proposals on the collaborative platform, and the contribution of ideas to other projects on the platform.

The Advertising and Marketing students were responsible for developing publicity and awareness-raising materials. Pieces were then defined for execution with the aim of propagating the campaign called 'Come plant'. The pieces defined were accessories with the brand's identity–cap and ecobag; Instagram profile and hashtag #vemplantar; digital book (Pdf) with tips and recipes; and definition of social actions for dissemination.

The documentary was created by the Cinema and Audiovisual course students, who defined the script to be worked on in this second stage.

5.3 Develop

This stage aimed at the development and production of communication pieces and the documentary. The teams developed some solutions, and the final proposals were presented on the collaborative platform, through which there were contributions from the professor, other colleagues and those responsible for the community garden involved. The proposals were also presented to members of the communication coordination of the city's Business Association (ACIJ) and Brazilian Support Service for Micro and Small Businesses (SEBRAE), for contributions and guidance in real time (Figure 2).

Figure 02: Presentation of the proposal.
Source: institutional platform (2022).

After the presentation and approval of the proposals, the materials were developed, so that other visits were made to the reference garden, mainly to record the documentary. Figure 3 shows some images of the development process of the documentary.

Figure 03: Development of the documentary.
Source: institutional platform (2022).

The documentary Cultivando Laços was developed, which can be seen in full via the link https://drive.google.com/file/d/1CypNHXhcpy4Fc2ruNSjhenD5e0tuf0tI/view. The documentary presents the social innovation process developed to generate the urban garden, as well as the benefits achieved by the community (Figure 4).

Figure 04: Excerpts from the documentary *Cultivando Laços*.
Source: our own.

Regarding the graphic pieces, the following were created, as illustrated in Figure 5: development of the campaign name and logo, "Come plant"; creation of accessories aligned with the brand's identity, such as caps and ecobags, intended for daily use by horticulturists in the garden or other environments, in addition to serving as publicity tools for the community; establishing an Instagram profile and adopting the hashtag #vemplantar; elaboration of a digital book in PDF format with guidance on growing and caring for urban gardens, along with recipes to optimize the use of cultivated food; and definition of social initiatives to be communicated through posters and informative folders.

Figure 05: Material developed for the campaign.
Source: institutional platform (2022).

5.4 Validate

The last step was applied to validate the proposal. For this, the materials developed were presented in a seminar, in the classroom. The contextualization of the proposal, the ideas generated, the development of the chosen solution, and the finalized proposal were presented. The seminar was attended by students, other course professors, members of the ACIJ Communication Coordination and SEBRAE and subsequently validated by the community, through its representative, who could not be present

on the day of the seminar, but validated the material on the platform and attended the presentation of the documentary at the *Amostra Univille Ação Festival* (Figure 6).

Figure 06: Urban garden representative at the festival.
Source: institutional platform (2022).

The proposal for this approach demand of urban gardens aimed to encourage other communities in Joinville to adopt community gardens in their neighborhoods, contributing to the environmental, food and social dimensions. The main objective was to transform vacant lands, which impact the community safety and health, into productive spaces. To achieve this purpose, a detailed analysis of a well-structured reference garden in the city was carried out, in order to understand the specific needs and replicate it in different neighborhoods of the city.

The students organized themselves into teams to explore the reference garden and interact with producers/residents of the respective community. These moments provided a significant exchange of information between the garden participants, highlighting the students' protagonism. The activity required research, since many students had no prior experience with cultivation or knowledge about organizing a "cooperative". In terms of teaching, it was necessary to relate the knowledge acquired in specific courses (Advertising and Marketing; Cinema and Audiovisual) to contribute to solving the identified demands. Regarding extension, the initiative brought the university closer to the external community, generating concrete proposals and solutions for local needs.

It is important to highlight that one of the concerns was the possible incompatibility of schedules, since understanding the demand required active participation in the garden and the subsequent execution of the project. Classes took place at night, while activities in the garden occurred in the morning and afternoon, coinciding with many students' work schedules. However, the community mobilized to welcome students on Saturday mornings,

thus making the desired integration possible. This effort demonstrated readiness and commitment not only on the part of the garden representatives, but also the students involved.

Throughout the process of creating the proposal, the project was monitored by the ACIJ Communication team and SEBRAE, which gave students confidence about what they were developing. These institutions gave very satisfactory feedback, praising the quality of the material. They intend to apply the campaign throughout the city. The identification of possible lands in the neighborhoods for negotiations with the city hall has been done, to then run the campaign.

"Come plant" campaign, designed by students, encourages the implementation of new urban gardens in the city, and envisions visibility actions for neighborhoods and communities in the city and on social networks, through the creation of a profile account of Instagram and the availability of recipe books in PDF format. There was also concern in creating the visual identity of the campaign, as well as accessories convergent to the proposal and social actions that involve the distribution of folders using seed paper, which has the function of clarifying the importance and benefits of an urban garden. At the same time, it contributes to environmental issues and effectively encourages planting, as the paper contains seeds incorporated into its composition, allowing it to be planted.

The documentary, on the other hand, gives visibility and voice to the community, shows real stories and experiences, bringing the proposal closer to the reality of families. The documentary produced in the subject was shown at the *Mostra Univille Ação Festival* and is available on the student collaboration and feedback platform for the external community, as well as on YouTube.

The evaluation of the curricular component was carried out by the subject professor, considering: the presented references; the coherence of the results with the project proposal; the technical quality of the results; class attendance; the team's contributions to other proposals on the collaborative platform; and compliance with deadlines.

6. FINAL CONSIDERATIONS

Community members, together with their representatives, warmly welcomed the students and played a fundamental role in clarifying the functioning of the garden in its broadest areas. Furthermore, they shared their experiences about the difficulties faced and the achievements since implementing the garden. In their reports, a feeling of pride was evident due to the recognition of the work in the garden, the opportunity to participate in the project, the visibility obtained, and the respect shown by the students when presenting the proposals prepared. In many situations of projects carried out in communities, there is the lack of this feedback for the community itself, which can generate frustration, a feeling of neglect and even distrust on the part of the community in future projects.

The students' reports largely reflect positive aspects, expressing gratitude for the theme chosen for the project. They expressed satisfaction with the results achieved in the proposal, noticing a significant connection between the knowledge acquired during their studies and the practical application in the campaign project. The material produced does not only have genuinely real value, but also carries intrinsic social relevance, contributing to significantly enriching their respective academic portfolios.

The students and community's protagonism in the urban garden in the Adhemar Garcia neighborhood was surprising, but the creation of gardens in the city does not depend only on the campaign or the documentary. These materials help, clarify, contribute, inform, and raise awareness, but the fact is that the emergence of an urban garden is only possible if there are determination, representation, and engagement from the community itself. This is how social innovation takes place.

Thus, for the occurrence of social innovation based on the construction of a community garden, it is necessary the collaboration of the active community members, local organizations, and authorities, to create and maintain cultivation spaces, promote education, and ensure that benefits are shared equitably. It is important to create an environment that encourages participation, collective learning, and the creation of innovative solutions to local challenges.

Activities developed in the extension experiences component are of great relevance for the students' civic education, as the knowledge acquired goes beyond purely theoretical learning, as it provides practical experiences that enrich students' education, developing technical and social skills, values, and a deeper understanding of the society in which they live. Furthermore, it contributes to the formation of engaged citizens who are aware of their social responsibility.

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