The culture of care and sense of belonging as drivers of sustainability in higher education

A cultura do cuidado e o senso de pertencimento como bases para a sustentabilidade no Ensino Superior

La cultura del cuidado y el sentido de pertenencia como bases para la sostenibilidad en la Educación Superior

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ABSTRACT
The purpose of this article is to examine how a culture of care and sense of belonging are related to environmental behavior and how it can be fostered in higher education. To support this analysis, the concepts and the ways of strengthening the sense of care and belonging are discussed based on literature and experiences developed on a campus of the University of Brasilia, Brazil. The physical environment and participation tools on campus are presented, as well as the results of a survey on the perception of the academic community about the quality of life on campus, answered by 10.5% of the campus population. The quality of life on campus was rated as good or excellent by 90% of respondents. The feeling of personal responsibility in taking care of people and in the campus environment was confirmed by 41% of respondents. We relate this perception to the community's participation in outreach and sustainability programs. Sustainability policies in higher education must prioritize the promotion of a culture of care and sense of belonging. These values are essential for the humanistic education of postsecondary students in a planetary reality that must be radically transformed, aiming at the transition to sustainable societies.
Keywords: Art-based intervention. Campus design. Higher education. Pedagogy of care. Sustainable University.

RESUMO

 O objetivo do artigo é examinar como a cultura do cuidado e o senso de pertencimento se relacionam com o comportamento ambiental e como podem ser promovidos no Ensino Superior. A análise é baseada nos conceitos e formas de fortalecimento dos sensos de cuidado e pertencimento discutidos na literatura e em ações desenvolvidas em um dos campi da Universidade de Brasília, Brasil. O espaço físico e os mecanismos de participação na gestão do campus são apresentados, assim como os resultados de um inquérito a respeito da percepção da comunidade acadêmica sobre a qualidade de vida no campus, que foi respondido por 10,5% da população universitária. A qualidade de vida no campus foi considerada boa ou excelente por 90% dos respondentes. O sentimento de responsabilidade pelo cuidado com os outros e com o campus foi verificado em 41% dos respondentes. Esses resultados são relacionados ao grau de participação da comunidade acadêmica na gestão do campus e aos projetos de extensão e ações voltadas à sustentabilidade. As políticas de promoção da sustentabilidade no Ensino superior devem priorizar o fortalecimento da cultura do cuidado e do senso de pertencimento como valores essenciais para uma educação humanizadora da juventude com vistas à transformação radical da realidade planetária em transição para as sociedades sustentáveis.

Palavras-chave: Ensino Superior. Grafite. Pedagogia do cuidado. Universidade Sustentável. Urbanismo tático.

RESUMEN

El objetivo del artículo es examinar cómo la cultura del cuidado y el sentido de pertenencia se relacionan con el comportamiento ambiental y cómo se pueden promover en la Educación Superior. El análisis se basa en los conceptos y formas de fortalecer el sentido de cuidado y pertenencia discutidos en la literatura y en acciones desarrolladas en uno de los campus de la Universidad de Brasilia, Brasil. Se presenta el espacio físico y los mecanismos de participación en la gestión del campus, así como los resultados de una encuesta sobre la percepción de la comunidad académica sobre la calidad de vida en el campus, la cual fue respondida por 10,5% de la población universitaria. La calidad de vida en el campus fue considerada buena o excelente por el 90% de los encuestados. El sentimiento de responsabilidad por el cuidado de los demás y del campus se constató en el 41% de los encuestados. Estos resultados están relacionados con el grado de participación de la comunidad académica en la gestión del campus y los proyectos de extensión y acciones encaminadas a la sostenibilidad. Las políticas para promover la sostenibilidad en la Educación Superior deben priorizar el fortalecimiento de la cultura del cuidado y el sentido de pertenencia como valores esenciales para una formación humanizadora de los jóvenes con miras a transformar radicalmente la realidad planetaria en transición hacia sociedades sostenibles.

Palabras clave: Educación Superior. Graffiti. Pedagogía del cuidado. Universidad Sostenible. Urbanismo táctico.

INTRODUCTION

Higher education's commitment to sustainability has been strengthened through the inclusion of the theme in curricula and in day-to-day campus management, such as, for example, the implementation of waste management policies and the sustainable use of inputs such as paper, energy and water. This growing commitment has led to the proliferation of studies and proposals on ways to promote and assess sustainability in such institutions (Levy & Marans, 2012; Karatzoglou, 2013; Farinha et al., 2019). More than just reducing the environmental impacts generated by campuses, it is necessary to seek ways for higher education institutions (HEIs) to effectively contribute towards the transition to sustainable societies.

Lozano et al. (2014) suggest seven aspects for the analysis of sustainability in HEIs, including education, research, outreach, operations, assessment and reporting, institutional framework and

on-campus experiences. Despite this broad and complex approach, there are still aspects related to cultural and political dimensions, not clearly considered in this list (Burford et al., 2013; Huckle, 2014), but which seem to be strategic for sustainable universities. Examples of these aspects are democracy (Disterheft et al., 2016), well-being (Wang et al., 2022), and affective outcomes (Shephard, 2008) among which we include the care and the sense of belonging of the academic community in relation to the campus, given that these feelings are direct components in the formation of an environmental citizenship.

Indeed, to fulfill the objective of effectively educating people in building a more sustainable society, universities need to be exemplary institutions that embody a culture of sustainability. Such culture implies, among other things, a more welcoming environment and people more committed to the well-being of all, which demands hard work in promoting values such as solidarity, otherness, responsibility, commitment and collective work (Boff, 1999; Ramos et al., 2015). Such values can be strengthened from a range of pedagogical possibilities and experiences in order to connect people and the environment (Goralnik et al., 2012).

These aspects contrast with the reality of higher education in the 21st century. Such a reality coexists with a growing culture of competitiveness among universities, a tendency towards gerencialist university management, with little or no participation from the academic community (Lima, 2012; Thiengo et al., 2018), and with impersonal infrastructure, whose architecture does not favor sustainability, integration of people and the development of a feeling of belonging.

The purpose of this article is to argue that the sense of belonging and care with people and nature are strategic for environmental behavior, and that such values can be strengthened during the formal experience of higher education, as the academic community is provided on participation in management, care with the campus environment and involvement with university extension.

METHODOLOGY

The argument that the sense of belonging and care are fundamental aspects related to the socio-environmental crisis and human environmental behavior is developed from the analysis of elements of the literature on environmental education, critical pedagogy and sustainability in higher education.

Then we argue that these values can be strengthened during the formal experience of higher education, as the academic community is provided on participation in management, care with the campus environment and involvement with university extension. To support this argument, ways of strengthening the sense of responsibility, care and belonging are discussed based on experiences developed on a campus at the University of Brasilia, Brazil.

The Faculty UnB Planaltina (FUP) is one of the four campuses of the University of Brasilia, located in Planaltina, a city in the northeast portion of the Federal District, 40 km from the federal capital of Brazil.

With an interdisciplinary organization, FUP was created in 2006 and consists of 116 professors, 137 staff, and 1355 undergraduate and graduate students. The sustainability theme is related to the courses offered by the campus and the profile of the professors who research sustainability under different approaches.

The main feature of the University of Brasília campus in Planaltina is the interdisciplinary work in the training of teachers of science and of rural schools, as well as environmental and agribusiness managers. Of the six graduate programs, four are directly related to socio-environmental issues. Sustainability is one of the campus' missions, and it has a sustainability assessment instrument made up of thirteen indicators, which include the participation and quality of life of the academic community (Bizerril et al., 2021).

In July 2020, a questionnaire was applied using an electronic form, which any member of the academic community could access and fill out. The questionnaire consisted of multiple-choice

questions, which had a space for the respondent to explain the option selected. The questions dealt with the academic community's perception of the quality of life on campus, participation tools and the recent artistic and architectural interventions carried out.

RESULTS

The sense of care and belonging in the face of a civilizational crisis of values

Important contemporary intellectuals, such as Leonardo Boff (1999), Enrique Leff (2004), Boaventura de Sousa Santos (2006), Edgar Morin and Peter Sloterdijk (2021), among others, have emphasized that the environmental crisis is actually a civilizational crisis, in which an economic, political, environmental, ethical and health polycrisis has generated serious threats to democracy, conviviality and quality of life.

This crisis is the result of the capitalist world economy (Huckle, 2014), an economic model that privileges the accumulation of goods, capital and unbridled consumption. Capitalism and its most harmful developments, such as top-down globalization (Santos, 2006), the culture industry and neoliberalism, not only aggravated socio-environmental problems, but led human societies to naturalize the destruction of nature, and to exacerbate inequalities that produces misery and hunger. In short, the capitalist system involves the dehumanization and exploitation of a large majority to maintain a system aimed at capital accumulation by a reduced elite. Both the excessive consumption and waste of the small portion of the richest population on the planet, as well as the scarcity and precariousness of life of the majority of the poorest humanity, feed the system that promotes a serious imbalance of natural and human wellbeing (Suša, 2019). Such distortion is exemplified in the case of global warming, a very serious problem driven by the richest 10% of humanity who are responsible for practically half of anthropogenic CO_2 emissions, while the contribution of the three billion of the poorest people (about 40% of the world's population) to global emissions is only about 5% (OXFAM, 2015). As a result, it becomes increasingly urgent to perceive environmental problems as socio environmental. This places such problems to be of social origin and, therefore, complex, related to several dimensions beyond nature and natural resources, as suggested by the Sustainable Development Goals (SDGs), proposed by the United Nations (UN, 2022).

The solution to reduce inequality is of a political nature, which requires leaders committed to this cause, as well as strong social pressure and participation in the same direction. In the classic book Pedagogy of the Oppressed, the Brazilian educator Paulo Freire very accurately describes the oppressive reality. For Freire, this reality is the relationship between oppressors and the oppressed, and the role of education as a liberator of both for the construction of a more fraternal, fair and egalitarian society (Freire, 1970).

In this sense, for people – both the oppressors and oppressed – to perceive the oppressive reality, and to be able to act in the sense of changing the situation of oppression, it is essential that education assumes a critical perspective. Education makes it possible to unveil, problematize and enact transformation a reality that cannot be considered static, but that can be modified and reconstructed (Freire, 1970). At the same time, values such as empathy, alterity and solidarity need to be strengthened. Empathy so that people can put themselves in the shoes of others by examining reality and becoming sensitive to the other person's situation. Alterity to recognize and respect differences, especially regarding minority groups. And solidarity to mobilize the action of caring for the "other", a term that should include nature and all human beings, from the immediate vicinity, from the same country, and from the other peoples that make up human societies in a planetary perspective.

Boff (1999, p.13) points out that the most painful symptom of the civilizational crisis that humanity is going through is the phenomenon of neglect, abandonment, lack of care, and that this is the result of the type of society of knowledge and communication that we have developed. Thus,

in his words, "care serves as a critique of our dying civilization and also as an inspiring principle for a new paradigm of conviviality".

In this perspective, Goralnik et al. (2012) argue that emotional engagement should be one of the goals of education, and that an environmental pedagogy of care can help students develop a sense of moral responsibility for self, others, beings, place and ideas.

The feeling of belonging results in increased care beyond private goods and places, but especially for public ones, belonging to everyone, which can bring important social contributions. When there is a feeling of belonging to a community and a place, people develop feelings of care, trust, identity and responsibility (Bizerril et al., 2011). Such a condition is an immediate counterpoint to the individualistic and competitive ideology of modern capitalist culture (Sá, 2005).

The promotion of sense of care and belonging in higher education

Disterheft et al. (2016) suggest that the existence of celebrations and the promotion of democracy and happiness are key aspects for sustainability in universities. According to Freire (2017), living democracy and participation requires the existence of subjects who can speak, have a voice and critically position themselves. Management is an important structure that can provide support for both the internal and external community to commit to socio-environmental guidelines and to guarantee the establishment of collective spaces and moments of meeting for decision-making and building transformative actions (Arrais, 2021).

As an institution whose main mission is education, the university must have its spaces designed and structured to promote knowledge, skills and feelings that strengthen the commitment to sustainability. The COVID-19 pandemic materialized what many education scholars (such as Nóvoa, 2019) had been saying when they considered traditional classrooms to be obsolete and punctuated the need for universities to recreate their internal spaces. Spaces were needed to provide more favorable conditions for meeting, dialogue, interaction, debate, project development and collective construction. The physical changes include the creation of spaces for integration, as already mentioned, but also for promoting well-being and reflection, which should include areas for rest and contemplation. The presence of nature and art are essential in this context, which can be built from deep reformulations in the architecture of the buildings and the landscaping of the campus, as well as from specific changes and interventions.

Major reformulations include, for example, the installation of photovoltaic energy systems and water reuse, as well as renovations and the construction of new buildings based on sustainable principles and the use of natural elements such as light, heat and vegetation. On the other hand, tactical urbanism is a concept associated with punctual, temporary and low-cost urban interventions that promote neighborhood living, but with a focus on large-scale changes in the long term (Pfeifer, 2013). These interventions include the use of paints and recyclable materials, among others, when creating temporary or non-temporary spaces that favor conviviality and the realization of social and integrative activities with better use of public space. The process of designing these interventions is also an important mobilizing force for collective work and citizenship. In fact, in an interesting review of the urban design processes, Ataman & Tuncer (2022) conclude that there is a great approximation between the domains of urban interventions and participation tools.

University extension is the main bridge between the university and the real needs of society, and it is developed through projects, courses and various interventions. Also known as outreach, the third mission or civic mission, it is recognized in Latin America by the term Extension since the Reform of Córdoba (which took place in 1918 at the University of Córdoba, Argentina), and composes the tripod of action of universities together with teaching and research, focusing on social commitment (Gomez et al., 2019).

Given its nature of intervening in the social reality, extension allows for a variety of possibilities to carry out educational actions with the academic community and within the

universities' territories, which could not only occur in the areas of teaching and research. Through extension actions, universities can share scientific knowledge with non-university students and learn from the community about local values and cultures (Nunes & Silva, 2011). To this end, actions can be carried out in partnerships with urban and rural schools, in collaboration with civil society, cultural movements, people with disabilities, traditional populations, the elderly, and a wide range of people and institutions. Thus, extension is an essential tool for the promotion of sustainability that involve participatory, experimental and innovative processes, bringing both students closer to the concrete reality and society of the university and its practices, thereby assuming a true social commitment.

Extension has a pedagogical nature very close to what has been suggested by several authors, such as Stephens et al. (2008) and Huckle (2014), as an education for sustainability. This is because extension activities are closely related to the understanding and discussion of reality, the exercise of dialogue with differences and the search for problem solutions. For these authors, HEIs can contribute to society's transition towards sustainability by, for example, teaching students to deal with complex problems from a systemic approach and conducting research based on real problems. Like other non-conventional learning methods (Leal Filho, 2021), extension activities can favor the development of skills, abilities and values necessary for the paradigm shift towards sustainable societies, highlighted by several authors such as Barth et al. (2007) and Lozano et al. (2021). Such a shift is part of and further enables creative and critical thinking, communication, cooperation, transcultural understanding, conflict management, decision-making, problem-solving and planning, practical citizenship, empathy and change of perspective, anticipatory thinking, inter-disciplinary work among others.

Planaltina Campus Case

Democratic and participation structures are part of the campus' daily life, such as, for example, the holding of regular general assemblies, the using of institutional social networks, conducting a calendar of official fellowships on campus, among others. Since the creation of the campus in 2006, several extension actions aimed at environmental education on the campus have been developed. These actions place an emphasis on the involvement of students in the care of the campus, the university's environmental management and in the promotion of selective collection (Bizerril et al., 2021). In addition, after only a few years of existence, the campus has become one of the university's sectors with the highest number of extension actions, providing students with diverse experiences of working together with society.

In 2016 and 2019, consultations were held to choose names for the campus buildings, auditoriums and library. The choices made by the academic community revealed the appreciation of scientists, educators and artists, three of them men and three women, committed to popular education and values such as social justice, democracy and sustainability. Between 2017 and 2019, a series of aesthetic and architectural interventions were carried out on the campus with the aim of increasing comfort, integration and the feeling of belonging. Spaces for conviviality and rest were created, such as a space to hang hammocks and adobe squares built in an extension course by the students under the guidance of a guest permaculture instructor. Through other extension actions, such as the Poesia nas Quebradas[1] Project, coordinated by an undergraduate student, visual communication and art were promoted from graffiti made by local artists, professors and students in the four buildings on the campus[2]. The paintings have turned the walls of buildings into murals and have served to encourage reflection, responsibility and citizenship, with themes related to

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[1] The name "Quebradas" is a slang term to characterize the periphery. The project would then be called 'Poetry on the periphery'.
[2] A sample of the graffiti on the Planaltina campus can be seen at the link
https://www.facebook.com/PaginaOficialdaFUP/posts/1345542838969727/

science, freedom, equality and human rights. The colors were widely used to replace the gray of the raw cement of the buildings, and sentences by educator Paulo Freire were written on the walls of the building that also bear his name. This brought greater beauty to the campus and facilitated the development of new social and affective bonds among the campus community.

The rate of return of the answers obtained for the survey corresponded to 10.5% of the campus population, totaling 168 answers.

The above initiatives helped to create a more favorable environment that increases the academic community's sense of belonging, care and responsibility towards the campus. This is what reveals some of the testimonies from the questionnaire:

> *"I knew the 'before' and 'after' of these spaces. The spaces occupied and the choices of the arts bring meanings related to the dialogues promoted on this campus. In this way, I am very pleased to see that spaces that previously meant nothing can attract our eyes and invite us to reflect"* (Former student - about applying graffiti and colors on campus).

> *"As a public institution, graffiti seeks to represent the historical and social diversity of the individuals who attend it. It is an affectionate way of expressing the context of our realities and our cultures, demonstrating that the FUP, in addition to disseminating knowledge, is open to the inclusion of anyone without any distinction"* (Student - about applying graffiti and colors on campus).

> *"Beautiful experience and attitude, an example of how it is possible to resolve issues of coexistence in collective spaces with affection and responsibility for all lives"* (Student - about installing campus animal feeders).

The quality of life on campus was rated as good or excellent by 90% of respondents. Regarding the reasons that lead the academic community to go to FUP, the feeling of pleasure in being at the institution and the sense of individual responsibility in caring for people and the environment was the option of 41% of respondents (Table 1). The following are some statements that clarify the feeling of belonging to the campus:

> *"FUP is my home! A welcoming place! I feel belonging to the campus, motivated to fight for it and for us!"* (Professor – about his quality of life at FUP)

> *"Despite being a Campus with many people, there is a closeness between them. And such closeness is encouraged and cultivated by all. This ends up generating an environment with a real sense of community."* (Administrative officer – about his quality of life at FUP)

> *"Despite being very diverse, the FUP has gathered over time a large number of people who believe (and practice) in a more humane and inclusive form of education. This made it become an inseparable part of my life, because it is in this type of practice that I believe, and I want to insert myself more and more..."* (Administrative officer – about his quality of life at FUP)

Table 1. Identification of reasons for coming to the FUP campus according to respondents (N=168).

Reasons for coming to the FUP campus	Frequency (%)
"I only come to FUP if it is strictly necessary."	6,5
"I come to FUP because I need to carry out my study/work activities."	23,2
"I like being at FUP, for the socializing with people and the pleasant atmosphere."	28,6
"I am pleased to be at FUP and I feel responsible for taking care of people and the environment."	41,7

DISCUSSION

According to Disterheft et al. (2012), a sustainable campus must associate the operational aspects of teaching, research and institutional management with education for sustainability, so that both the internal and external community come to recognize and to practice lifestyles that promote the well-being of current and future generations.

It was based on these premises that the interventions were carried out on the FUP campus. Despite the initial resistance from a small part of the academic community to the changes promoted on the campus, the landscaping, the use of colors and graffiti in the buildings, the presence of animals (based on responsible care projects) and the expansion of living and resting spaces were factors that contributed to an increase in comfort and pleasure of being on campus and contributing to it.

The perceptions of the university community corroborate recent studies such as the one by Caeiro et al. (2020). The authors analyzed several sustainability assessment tools in cases of Portuguese and Spanish universities and concluded that it is necessary to develop indicators that consider non-traditional aspects of sustainability, such as participatory and dialogic methods. They emphasize that dialogue and participatory practices are essential to build a culture of institutional learning in sustainability that overcomes reductionist practices.

Academic literature advances arguments about the strengths and weaknesses of top-down and bottom-up strategies in the implementation of sustainability in HEIs (Brinkhurst et al., 2011; Sepasi et al., 2018; Akins II et al., 2019; Mazon et al., 2020). If, on the one hand, the will of management alone is not enough to involve the academic community in the proposed actions then, on the other hand, the lack of management commitment to the subject limits the action potential of the initiatives of faculty, staff and students (Dyer & Dyer, 2017). Therefore, it is necessary to have both the commitment of managers to encourage the participation of the academic community as well as a certain level of autonomy within this community to propose and execute actions in the field of sustainability.

However, the idea of democratic management is not a consensus in universities. Lima (2012) alerts to the advancement of the business management model in universities. This model is stimulated by the progressive increase in performance demands from universities that are positioned among themselves as competitors in a world of disputes over students and funding. The different rankings place universities on the same global quality standard. In addition to disregarding the cultural and socio-environmental situation of the region where the universities are located, rankings use the same parameters to measure the performance of very heterogeneous institutions (Thiengo et al., 2018). It is important to note that if universities are educational institutions aiming to train leaders and citizens committed to socio-environmental justice, the corporate environmental management model cannot be fully applied to HEIs and to what is expected of a sustainable university (Bizerril et al., 2021).

Although the strengthening of critical pedagogy in curricula is defended by several authors in the field of education for sustainable development, the discussion about values tends to be less addressed in higher education. This is perhaps due to the assumption that such values were duly

worked on in previous levels of basic education. However, the growing pressure on schools to focus their efforts on passing students in the selection exams for access to higher education can lead to harmful aspects of human development. More than disseminating historically constructed knowledge, formal education should promote values based, for example, on justice, solidarity and empathy (Novak, 2008). In this regard, a simple observation of the behavior of a significant part of the youth suggests that there is much to be done in the human development of students in higher education, beyond purposes that aim only at the logic of training professionals to meet the labor market (Resende et al., 2020).

In the Brazilian case, particularly in public universities, a pedagogy of care can cause significant social contributions to the formation of environmental citizenship, and the overcoming of serious cultural problems associated with patrimonialism (Schwarcz, 2019), that is, the appropriation of public goods for private interests, and an individualistic and segregationist perception of elites in relation to historically less favored social classes (Souza, 2019). Such feelings have gained even more strength in recent years in Brazil, which has generated serious crises with social and environmental impacts (Menezes & Barbosa Jr., 2021), including the catastrophic impacts of the Covid-19 pandemic (Nicolelis, 2021), which in Brazil provokes the absurd number of 690,000 deaths.

The situation generated by the Covid-19 pandemic allows us to make some inferences and comparisons regarding people's behavior in the face of the socio-environmental crisis in its regional nuances, but also in the global context, with an emphasis on three attitudes: (i) the difficulty of recognizing a problem as yours and not just someone else's; (ii) the mobilization to have the problem solved only on the level of personal interests; (iii) the disregard for what the problem may be causing to other people who live in different situations.

The point is that the pandemic has exposed individualistic and denialist human behavior, present in a significant part of contemporary society. And if this occurs even in the face of a concrete and immediate threat to the lives of these subjects, what can be expected of their behavior in the face of socio-environmental issues? Here's the reason why the HEIs should reflect on how they have contributed to the formation of citizens to deal with socio-environmental issues, and how they have fostered the construction of bonds of empathy, solidarity and a sense of care with students and other members of the academic community.

CONCLUSION

The above examples denote the need for continuous humanistic training in higher education. In this way, efforts to integrate the academic community do not have to be considered as a waste of time. In fact, an integrated community is more likely to adhere to collective proposals and programs. For this reason, consistent and continuous work in the integration of the community, in the construction of networks of affection, in the collective struggle for social rights and in the commitment to quality education for all are more effective than exhaustive efforts to mobilize participation in punctual environmental education actions.

A welcoming atmosphere that promotes meeting and comfort contributes to community integration. Therefore, the ideas associated with tactical urbanism and urban interventions seem convergent and applicable to the context of HEIs that seek sustainability.

It is indisputable that good scientific and technical training is decisive for the quality of future professionals. However, humanistic education and learning about ethical values are essential aspects for the development of higher education students' socio-environmental awareness in order to prepare them to face current socio-environmental challenges and to transform the reality around them. More than ever, the role of HEIs in the transition to more sustainable societies must involve promoting a citizen culture of care and solidarity.

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