



Practice-based learning and sustainable education for management students

Aprendizagem baseada em prática: Educação sustentável de alunos de administração

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Abstract

Purpose: This paper aimed to understand the learning processes and the constitution of knowledge about Sustainability of undergraduate students in Business Administration. From the perspective of learning based on practices and the concept of knowing-in-practice, students' social, contextual and material relations were explored during a year. **Design/methodology/approach:** In methodological terms, an ethnographic study was conducted with the detailed description of action scenes. **Findings:** The findings reveal a dynamic and heterogeneous interweaving of elements such as people, technology, ideas, speech and actions and point to the need to recover sensitive knowledge and the collective construction of reality through reflective and collaborative processes with tangible results. **Academic contributions:** There is a contribution to the discussion of Sustainable Education. The focus is not on what Sustainable Education 'is', but 'how' is 'done' and what 'does'. The implicit meanings are sustained in practice, become embodied and appear in discursive and sociomaterial practices. **Practical contributions:** Enacted knowing and doing were perceived when students reported replacing unsustainable practices with sustainable ones, based on the experiences they had during the research. **Keywords:** management; sustainability; practice-based learning perspective; knowing-in-practice; sustainable education.

Resumo

Objetivo: Este trabalho objetivou compreender os processos de aprendizagem e a constituição do conhecimento acerca da Sustentabilidade de estudantes de graduação em Administração. A partir da perspectiva da aprendizagem baseada em prática e do conceito de knowing-in-practice foram exploradas as relações sociais, contextuais e materiais dos alunos durante um ano. **Metodologia:** Realizou-se um estudo etnográfico com descrição detalhada das cenas de ação. **Principais resultados:** Os achados revelam um entrelaçamento dinâmico e heterogêneo de elementos como pessoas, tecnologia, ideias, discurso e ações e apontam para a necessidade de recuperar o saber sensível e a construção coletiva da realidade por meio de processos reflexivos e colaborativos com resultados tangíveis. **Contribuições acadêmicas:** Há uma contribuição para a discussão da Educação Sustentável. O foco não é acerca do que a Educação Sustentável 'é', mas 'como' é 'feita' e o que 'faz'. Os significados implícitos são sustentados na prática, tornam-se corporificados e transparecem nas práticas discursivas e sociomateriais. **Contribuições práticas:** O saber e o fazer enactados foram percebidos quando os estudantes relataram a substituição de práticas insustentáveis por outras sustentáveis, a partir das experiências vivenciadas ao longo da pesquisa.

Palavras-Chave: administração; sustentabilidade; perspectiva da aprendizagem baseada em práticas; knowing-in-practice; educação sustentável.

1. Introduction

The accelerated pace of change, uncertainty, complexity and the constant need for new knowledge reinforce the necessity for profound transformations in higher education (Smith, Shaw & Tredinnick, 2015). In this sense, Gherardi (2015a) argues that knowledge involved in a profession has become increasingly complex, specific, specialized and constantly changing, besides the fact its life cycle has become shorter, and the processes as well as actors producing different forms of knowledge have become progressively diversified and dynamic.

Faced with complex and uncertain scenarios, higher education institutions and universities might act as places of connection and development of leaders to act in the creation of sustainable societies (Blake, Sterling & Goodson, 2013; Sterling, 2014). However, assuming this responsibility would rise against the inherent tension between neoliberal market-oriented approaches to higher education, in which the capacity of students to be productive in a market economy is emphasized, and more holistic concepts regarding the role of universities in a context of socioeconomic and ecological challenge, complexity and uncertainty (Blake, Sterling & Goodson, 2013).

In this sense, Sustainable Education (SE) encompasses this more holistic educational approach, concerned with relationships instead of products, with emergencies rather than of predetermined outcomes (Sterling, 2004). Accordingly, Sterling (2014) states that the future of humanity depends on a collective condition to learn and change. For him, education could build lasting change. Nevertheless, on the one hand, the challenge would rest on the ability to renew educational practices, policies and place sustainability at the center of teaching-learning processes and, on the other hand, to make education central to debates about sustainability.

The Management field is an important part of this debate. For instance, Anderson, Hibbert, Mason and Rivers (2018, p. 432) observed a strong orientation of undergraduate courses in Management towards a "positive return on investment" and a "mercantilization". To counter this scenario, the authors propose to adopt reflexive learning processes, with a localized and critical view of contexts, since political, economic, social and environmental conditions have been in rapid transformation and have had a significant impact on organizations and on managers in particular.

Brazilian authors have also reinforced the need for epistemological, structural and behavioral (Jacobi, Raufflet & Arruda, 2011) and contextual, organizational, curricular and pedagogical (Figueiró, 2015) changes to move towards sustainable education. Figueiró (2015) reinforces the need to reverse Management education current scenario, especially in curricular and pedagogical dimensions. The author points out that the students' learning path needs to be richer in meaning, dialogue, action, and reflection on related practices (Figueiró, 2015).

A central question emerges from this scenario of management education: How to help and involve students in management in activities aimed at learning about sustainability? There are at least two important developments deriving from this question. First, the need of university students to experience an integrating process in the classroom with the most comprehensive reality of real-world problems, taking into account the exchange with the community through practical activities and the structured reflections of these experiences (Rutti, LaBonte, Helms, Hervani & Sarkarat, 2016; Rueda, Acosta & Cuerva, 2020). For Kennedy, Billet, Gherardi and Grealish (2015) changing values about how learning and practice interact will require a significant change in theory and in higher education. In this perspective, workplaces provide distinct experiences from educational settings, this challenges a key cultural assumption on which much education is based - on the idea that educational programs would lead to knowledge transferable to work experiences.

A second development refers to the change in the way knowledge is viewed, not as something almost exclusive to the mind or cognition, but as a practical, reflective and collective realization. Practical knowledge is analyzed from a sociomaterial as well as organizational perspective. Moreover, the unit of analysis has been the situated activity as well as the material and discursive practices. For Gherardi (2012a), the study of knowledge practical organization is one of the most important directions taken by empirical studies using the practice-based approaches.

In this regard, this study intended to investigate learning in practice. In theoretical terms, this structure identifies learning not as a final state to be measured and judged, but as a participatory process in which knowledge is linked to action. A practice-based approach is a theoretical flow placing practice as the central social phenomenon (Schatzki, 2001a) and offers ontological, epistemological and methodological sensitivity for such research process. Ontologically, it remedies problems with traditional dualistic reductions (actor/system, mind/body, theory/practice) (Nicolini, 2013; Schatzki, 2001a). As an epistemology, a practice-based lens offers a way to see and theorize knowledge, in which

practice is the link between knowing and doing (Corradi, Gherardi & Verzelloni, 2010; Figueiredo, Castro & Silva, 2021). As a research methodology, it focuses on what people actually do, rather than what they should do (Nicolini, 2013).

In this perspective, Spurling, McMeekin, Shove, Southerton and Welch (2013) consider that social practices are a better target for sustainability policy intervention than behavior, individual choice, or technical innovation in isolation. Practices are social phenomena - their performance implies in the reproduction of cultural meanings, socially learned skills, tools, technologies and common products. A practice perspective reformulates the question from "How can we change the behavior of individuals to be more sustainable?" to "How can we change everyday practices to be more sustainable?"

This study describes the activities of the Socio-Environmental Management in Companies discipline, in the undergraduate course in Management at the Federal University of Rio Grande do Sul (UFRGS), and the interaction between students with the Sustainable Innovation Zone of Porto Alegre, in the light of the notion of knowing-in-practice. To convey a preliminary idea of the theoretical and methodological framework, we can say that knowledge can be seen as an activity, and not as an object, i.e., a body of knowledge, thus, it can also be studied as a situated activity. Knowledge emerges from the contexts of its production and is anchored by (and in) the material support of this context, it is procedural and relational. Knowing is an individual and collective activity, situated in working practices and, therefore, practical knowledge is contextual, as opposed to being decontextualized and theoretical (Gherardi, 2012b).

To advance and contribute to such debate, this study had the objective to analyze how learning processes are configured in the articulation of knowledge about sustainability in the light of the theory of practice.

1. Theoretical Review

In recent decades, the understanding of how social actors are produced and reproduced has led many researchers to adopt practice-based approaches. Gherardi (2012b) and Nicolini (2013, 2017) highlight the importance of Anthony Giddens, Pierre Bourdieu and Harold Garfinkel's work for understanding social practices. Concepts such as Bourdieu's 'habitus' and Giddens' 'practical consciousness' have the historical merit of suggesting that practices ordered by space and time are the basic domains of social sciences. These authors established the theory of practice as one of the main social theories of the millennium turn. Correspondingly, Garfinkel further developed a way of treating practices and practical sociological reasoning as topics of empirical study.

In the early 2000s, Theodore Schatzki and Andreas Reckwitz's work of had a considerable impact on practice-based approaches. These authors are important references for the return of practice to contemporary social thinking. For Schatzki (2001a, 2019), practice approaches promote an ontology in so far as the social is a field of embedded practices, materially interconnected and organized around shared practical understandings.

Individuals' multiple actions are interconnected and gain a joint identity not in a random, disorderly way, but around a given practice through a structure composed of three fundamental elements: understandings, rules, and teleaffective structures (Schatzki, 2005). Practices form the main context of social orders, shaping action and meaning, i.e., helping to shape the practical intelligibility that governs activities (Schatzki, 2001b). Reckwitz (2002) highlights that practice is, in the sense of social practice theory, a routine in which bodies are moved, objects are manipulated, subjects are treated, things are described, and the world is understood.

1.1. Learning based on theories of practice and integrated with work

Studies on communities of practice (Lave & Wenger, 1991) marked the transition from a cognitive and individual view of learning to a social, contextual and situated view (Gherardi 2009a, 2009b; Corradi et al., 2010; Cadavieco, Martinez & Cabezas, 2016; Gherardi & Miele, 2018). After long debates, the concept of community of practice was named as practice-based studies, a kind of theoretical umbrella that brings together analytical literatures interested in the study of practices as situated and mediated by materiality (Gherardi & Miele, 2018).

The social and procedural approach of practices requires that knowledge be situated, embedded in materiality and kept alive in the community context. The ways of knowing and practicing are continuously and collectively produced and enacted (Gherardi & Miele, 2018). In this regard, Gherardi (2015a) reinforces the importance of treating education as a situated activity, procedural, contextual and anchored in materiality and a collaborative production rather than an object. The author proposes to deem education a social practice historically and culturally constituted within a texture of practices situated in which different actors, rationalities, and ways of doing things meet.

Furthermore, the curriculum and its related pedagogical practices assume a central position in educational dispositions and higher education programs, since it is through them that the integration of experiences based on practice takes place. The pedagogy of practice is thus shaped by the set of cultural and societal values as well as by situational factors comprehending the circumstances surrounding experiences. In this sense, the curriculum needs to contemplate the voices of those involved with its construction (Billet, 2014, 2015a).

Regarding pedagogical practices of learning in active contexts, Billett (2015b) reinforces the readiness as well as the authentic students' learning capacity need to be developed before practical experiences. As such, the quality of learning depends on students' personal epistemologies including their abilities and intentionalities during these experiences. In completing their practice, it is important students can share what they have experienced with others, and receive feedbacks after each practical experience throughout the learning process. (Billet, 2015a, 2015b; Billett, Cain & Hai Lee, 2018).

Those involved in learning-in-practice research need to stop building personal purposes and question moral imperatives and previous categories they may be imposing on others (Fenwick, 2010). Looking at learning-in-practice critically comprises issues of identity, power, and politics, which may counteract the depoliticized and morally infused prescription from books and reveal what we can actually do to promote practice-based learning (Fenwick, 2008).

1.2. Knowing-in-practice and the theoretical scheme analyzing situated practices

The objective of studying labor as a practical knowledge and a situated activity is to substitute objective rationality for contextual rationality, considering the context in which it is performed as actively constructed. In this sense, practice-based studies constitute both a sociology and a politics of knowledge in their daily use (Gherardi, 2012b).

Moreover, practical knowledge presupposes the use of specific appropriate language to operational contexts and the construction of a shared space of mutual understanding and agreement (Gherardi, 2012b). In addition to language, practical knowledge is also acquired at sensory and aesthetic levels, taking into account that pre-verbal, affective, bodily knowledge connects aesthetics, emotions and affectivity. Such knowledge is incorporated in the double sense in which the body becomes an aesthetic source, and knowledge takes place through the body as well as it becomes part of a professional culture (Gherardi, 2015b). In this perspective, not only do people work through their bodies, but they also know with their bodies; and knowledge is also preserved within individuals' bodies (Gherardi, 2012b).

To understand and explain group learning through practice, knowing, participation, interaction, language and metaphors are fundamental elements (Bispo, 2013). The notion of knowing was introduced by authors such as Cook and Brown (1999) when they found that not everything about knowing can be properly captured by understanding knowledge. Nonetheless, it is important to emphasize knowing as a process resulting in knowledge. In other words, knowledge is an institutionalized form of knowing things (Nicolini, Gherardi & Yanow, 2003).

Bruni, Gherardi and Parolin (2007) define a practice as relatively stable in time and space, and a socially recognized way of ordering heterogeneous elements, in a set of activities normatively supported by a community of practitioners. Moreover, practice can be defined as the performance situated in a network of humans and non-humans symmetrically associated and undergoing an enactment process. It is the weaving of the intermediaries of practices, which are elements like people, things, technologies, tools and ideas allowing the translation of knowing into knowledge (Gherardi, 2006). Hence, knowing can be conceived as a situated, repeated, stabilized and institutionalized activity. In this perspective, knowing-in-practice is the mobilization of knowledge incorporated in humans and non-humans performing practices integrated to their labor (Bruni, Gherardi & Parolin, 2007).

Furthermore, know-how is a social condition for learning a practice, beyond the generation and transmission of knowledge. This condition unfolds in another concept, i.e., knowing-in-practice, meaning the moment of people's interaction with practices, when they tacitly apprehend them. Thus, learning is a composition of knowing and doing, i.e., practices (Bispo, 2013) and knowing-in-practice is constructed by practices in a context of interaction. From this perspective, practice becomes the figure of speech allowing processes of knowing to be articulated as historical, material and undetermined processes. In other words, practice is the bridge between knowledge and doing. Therefore, participation in a practice is, on the one hand, a way to acquire knowledge in action and, on the other hand, a way to change/perpetuate, produce and reproduce society (Corradi et al., 2010).

Gherardi (2012b) proposes a theoretical scheme to analyze practices starting at the notion of knowing-in-practice. This scheme includes a pragmatic posture, namely, the practical knowledge

which is directed to do things such as making decisions in situations, solving problems, maintaining and reproducing the community of practitioners; temporal specificity, emerging from situations and situated actions; anchorage in materiality, using fragments of knowledge incorporated in objects, technology and in the material world interacting with humans and interrogating them; anchorage in discursive practices, i.e., practical knowledge as making use of a discursive mobilization of clues to act and its position in the narrative scheme gives meaning to what occurs phenomenologically; historical-cultural anchoring, in the sense that practical knowledge is mediated by what has happened in the past and by what has been learned in each experience.

Next, we underline the reflexive elements of how theories of practice can help to understand the emergence, persistence and disappearance of social practices as well as their patterns of stability and change. Accordingly, initiatives to promote more sustainable ways of living could be rooted in understanding elements forming practices and systems as well as the connective tissue holding them together (Shove, Pantzar & Watson, 2012).

1.3. Theories of practice and sustainability

Theories of practice enable to observe sustainability issues from distinct angles. First, they contribute to understand justice, transition, innovation and political economy, as well as contemporary patterns of consumption. Moreover, there has been studies on attitude, behavior and consumer choice. Theories of practice also allow one to think about why certain practices become established on a societal scale (Shove & Spurling, 2013).

In this sense, practice systems undergo continuous reproduction, but in as much as apparently uncontrollable and unsustainable processes emerge, they seem to reproduce themselves and make sustainable patterns disappear (Shove & Walker, 2010). Spurling et al. (2013) suggests policies should focus on discouraging unsustainable practices, replacing them with other existing or new alternatives. This framework compels individuals to reflect about the future by extrapolating from existing practices and to think about how more sustainable practices could meet the same needs and desires. Pimentel (2020) argues in favor of understanding how practices change over time and how it would be possible to intervene to make them more sustainable. The simple description of practices would not be enough to achieve a more sustainable reality.

Also, people do not consume objects, resources, and services on their own, but while performing social practices. Thus, social theories of practice provide an important intellectual resource to comprehend the institutional and infrastructural conditions in which less resource-intensive ways of living could be carried out. By paying attention to the elements that make up a situated practice and how these elements interact, it would be possible to see whether or not there is ethics, responsibility and sustainability in this practice (Gherardi & Laasch, 2021). The challenge is to imagine and realize versions of life fitting sustainability standards, implying a substantial systemic transition from what people currently do, how they move, what they eat, and how they spend their time (Shove & Spurling, 2013).

At least, it would be contradictory to assume approaches centered on the individual and on cognition when collective and shared learning processes are the most demanded for transformations towards sustainability (Vasconcelos & Silva Junior, 2021). Sustainable collective practices can develop transformative knowledge in participants. The experience with others could change the way the practice is understood by the practitioner, which would make him/her introject its sustainable character (Figueiredo, Castro & Silva, 2021).

A practice perspective demands political modesty to engender social change, such politics recognizes we have less control over the social environment where change occurs than we might wish. However, accepting the complexity of transitions to sustainability does not mean accepting only minor, incremental changes. Accordingly, transformations in social practices happen all the time; one only needs to examine the past decades to see to what extent patterns of work, travelling, and communication have changed in a relatively short time, suggesting optimism about an achievable scale of change. Nevertheless, it does not implicate in assuming that positive change will take place imperatively, but rather it means the urge to guide the direction of change and to be sensitive to inadvertent effects of policy blocking or even encouraging resource-intensive lifestyles (Spurling et al., 2013).

2. Methodological procedures

The practical actions engendered by undergraduate Management students were made possible through their involvement in ZISPOA projects. Such involvement allowed to integrate experiences to the curriculum in real situations. Succinctly, we can state that the methodological tool adopted in this

study relied on observing what people really do instead of saying what they should do (Nicolini, 2013, 2017; Gherardi, 2018).

2.1. Context

There is a class on Socio-Environmental Management in Companies (SMC) in the Management course at Federal University of Rio Grande do Sul (UFRGS in Portuguese). The course is mandatory and it can be a limiting aspect from this study. It should be noted, however, that the student, when choosing to take the course, has access to the teaching plan and is aware of the pedagogical proposal. Class activities were observed in two groups: one in the first semester and another in the second, so data were collected between March and December 2017. The students were oriented to partner with ZISPOA (the Sustainable Innovation Zone of Porto Alegre in Portuguese), and this decision was regarded both as a method to bolster the learning processes about sustainability as well as a way for students to collaborate with ZISPOA's development. However, the partnership with ZISPOA was not mandatory.

ZISPOA is an initiative that rose from a partnership between the Non-Governmental Organization (NGO) Global Urban Development (GUD), Pulsar, an Entrepreneurial Culture Hub, Paralelo Vivo, a Sustainable Business Hub as well as between university professors and students from different areas and the community. ZISPOA intended to be a reference in innovation and sustainability so it could be replicated not only in Porto Alegre, the capital city, but also in other cities in Rio Grande do Sul, Brazil and Latin America (ZISPOA, 2017).

ZISPOA's approach to SMC students was made possible through the ZISPOA at Universities (ZUNI in Portuguese) project, which focused on more practical applications of classroom knowledge. To this objective, ZUNI worked along with university professors and students interested in getting involved in real projects on sustainability. ZUNI's coordinators visited SMC classes to bring students closer to the innovation zone demands and objectives, it also fostered practical activities and ongoing projects throughout the semester. The students also sought help and additional information by participating in the weekly ZISPOA meetings and keeping in touch with those responsible for the different projects.

Furthermore, the activities were based on ZISPOA's main objectives: to be the most energy-efficient solar-powered place in the city; the most digitally-connected; and the friendliest to renewable technologies and bicycles.

2.2. Types of studies and techniques for data collection

The theoretical-analytical apparatus that serving as bases for studying the notion of knowing-in-practice include elements such as a pragmatic posture, temporal specificity, anchoring in materiality as well as in discursive practices and historical-cultural backgrounds (Gherardi, 2012b). In this qualitative research we employed, more precisely, an ethnographic-based approach. In particular, the strategies adopted here were participant observation, the analysis of documents as well as of interviews and the resort to reflective writing. In this regard, the ethnography started with the theoretical positioning to describe social reality, thus, the research became mainly focused on detailed descriptions. This "style research practice that acknowledges that all elements — texts, actors, materialities, language, agencies — are already entangled in complex ways, and that they should be read in their intra-actions, through one another, as data in motion/data that move" (Gherardi 2018, p. 741). In doing research inspired by ethnography, as researchers we have the opportunity to re-immers ourselves in a materiality of work life that is plural and complex, uneven and contingent, relational, and emergent (Pink, 2012).

This method deems qualitative research as a process because it supposes longer periods in the field and a closer contact with people and contexts. Accordingly, Hopwood (2010, p. 10) questions: "If the practices I am researching are fluid and undetermined, why would my research be different"? Both theories of practice and ethnography encourage a relational view, and the ethnography offers a situated way to explore doings and sayings as they unfold within and through complex relationships. In so doing, ethnography does not isolate any practical dimension, but it opens the researcher's gaze to the multiple relations constituting or prefiguring practices.

Participant observation is one of the most common techniques employed in qualitative ethnographic-based research. According to Flick (2009), this technique emphasizes the interpretation and understanding of human existence in local and everyday life situations, using an open, flexible logic and a research process requiring a constant redefinition of what is problematic, relying on concrete facts and configurations. As previously stated, data collection was carried out through notes organized in a field diary. These field notes comprised explanations and descriptions of the physical scenario and all objects; the relationship and description of participants; the chronology of events; descriptions of behaviors and interactions; and accounts of conversations and/or verbal interactions.

In addition to the field diary, classes were recorded to help recalling moments that could go unnoticed. Other sources served as information, such as e-mails from conversations for planning and organizing classes; messages received and sent by students; teacher and students' postings in the Moodle platform and on WhatsApp; written assignments and students' slides.

Furthermore, the culture and context were examined throughout the participant observation, and semi-structured interviews were conducted as a complementary data collection technique. The interviews were conducted with undergraduate Management students, enrolled in the SMC course, with the course professor and with one of the ZISPOA coordinators. The interviews carried out had the consent of the respondents. Fictitious names from cartoon characters were adopted in the text to preserve interviewees' real identities.

As stated, the data collected were analyzed in a descriptive manner. For Angrosino (2009 p. 90), "descriptive analysis is the process of taking the data flow and decomposing it into its constitutive parts" to find themes, regularities, and patterns shared by members of a group. The meetings and interviews were detailed in 235 pages. Accordingly, the analyses and reflections enabled by the data conveyed below.

3. Results

The discipline offered reflections, experiences, and co-creation possibilities to articulate different bodies of knowledge about sustainability. Nevertheless, the knowledge about socio-environmental themes lies in what remained in each student as well as in what will be produced and reproduced in their daily practices.

In this sense, the discipline discursive practices sought to mobilize and give meaning to the activities taking place. These activities involved the students in a socio-environmental problematizing sphere. The intention was to invite students to sustainable actions through different kinds of practices. The following extracts come from the accounts and are about students' transformation in their practices.

Table 1 – Transformations on students' practices

Research material SMC Student	Data
Nala	"I've started to separate the garbage at home, and I've implemented selective garbage collection in my company. I'm the owner of a parking lot and I also looked for a solar alternative there. The subject took me out of my comfort zone." (speech extract)
Pocahontas	"The social business classes opened my eyes a lot. I also started buying less clothes that semester and went to some vegetarian restaurants." (speech extract)
Matilda	"The discipline made me change my paper consumption habits and reduced waste in restaurants that serve food in excess". (speech extract)
Elsa	"My mother started buying rice oil and I gave a mug to a colleague who works next to me to use instead of the plastic cup." (speech extract)
Mary	The discipline helped me to become more aware about organic food and some industrial processes." (speech extract)
Donald	"The discipline impacted my consumption of meat, reduced my consumption of paper and plastic cups." (speech extract)
Fred	"I am very interested in using bicycles for urban mobility. I got involved because I've been cycling to work. A few times a week I go to work by bike." (speech extract)
Jana	"If the company doesn't think about social and environmental issues they will fall behind. Now I pay more attention to the things I buy and consume. I'm using a new 100% vegan brand of cosmetics; they don't test on animals and the company concerns with ethical issues." (speech extract)

Source: Research data

A noteworthy activity was the collective snack organized during the breaks of SMC lectures. The initial idea for the collective meal emerged to encourage the consumption of healthy food prepared by

the students. Throughout these moments, reflections arose about the use of plastic cups and about what food each volunteer was offering. Each student had a distinct posture in relation to this, while some were only concerned with fulfilling the demand to take the snack, there were others who wanted to prepare something healthy to share, resisted the use of plastic cups and understood the collective meal had a greater objective than just eating.

Sharing food and tasting it together are communicative acts that unite people and allow them to share impressions, emotions, and happiness (Cavaliere, 2014) as food consumption is part of human history and daily life. It reveals our most intimate dispositions and tastes as well as humanizes us as social subjects who wish to give meaning to existence, to share knowledge and tastes. The collective snack awakened smiles, the talking atmosphere around the table, feelings of well-being and belonging. Thus, what would be the relationship between sharing food and social conviviality?

To answer such a question, it is important to recall that theories of practice study pre-verbal and bodily knowledge related to emotions and affectivity, and this sensitive knowledge (Gherardi, 2015b) refers to sensory and aesthetic levels. For Gherardi (2012b), people get to know the world through their bodies and keep such knowledge in them, thus, sensibility, emotion, and affectivity are inscribed within us. In other words, sensitive knowledge is written in the silence of gestures and facial expressions. Therefore, although the choice for a sustainable, humanized and a meaningful life cannot exclude technique and technology, it also requires replacing perceptive faculties in their place within the collective construction of knowledge.

From students' disposition for the collective meal, countless possibilities for exploring sustainable practices emerged for future semesters. A number of topics could be introduced and explored: healthy eating and well-being, agroecology as a form of food production, food waste and its environmental impacts, composting and the correct destination of waste, use of disposables and environmental awareness, food life cycle, pesticide pollution and its health impacts, among others. The collective meal could be explored with greater reflexivity and before starting the snack the class could analyze what was served, reflect on the food offered and evaluate what should be changed in collective practices.

Regarding the projects linked to ZISPOA, there were communication problems between the students and the volunteers working in the innovation zone. ZISPOA is a movement, not a company with permanent employees and specific roles, thus, the teams dealt with discursive positions not always aligned with the different actors of the collectivity performed there. However, despite the communication obstacles, one of the projects, called 'Solar Post' can be exemplified as a collective realization, in which a series of material and discursive practices were enacted up to the project was finished. The accounts of one of the students illustrate the matter:

It must be said this project is only possible because of the initiative the professor had with students from previous semesters and a group raffled off and managed to raise money. The intention was to install solar panels in the Business School, but they could not get to that stage and then we managed to do this second stage, which was to find a partner. Thanks to the students of the past two semesters and to ZISPOA's initiatives, we could transform this project into reality. It was everyone's involvement. And we think that after making the initiative possible at the Business School we could make this technology available elsewhere (Solar Post Project Pupil).

The first semester of 2017 students involved in the final phase of conception and installation of the 'Solar Post', carried out a practical activity and performed the knowledge into action. Through one of the students accounts it is possible to realize the equivalence between knowledge and practice (knowing-in-practice), even though she was not aware of it.

I would like to thank the professor for allowing the engagement in such special causes as ZISPOA and the coordinators of the innovation zone for allowing this project to operate and to become viable. All the lectures I attended at UFRGS never managed to put much of what was learned into practice. Theory is good, but practice is always better, I think. Seeing the results proves that through small changes and small initiatives we can make a nice thing. This discipline is not only about sustainability, but it's about getting down to work and trying to change something in the community so that in the future we can scale up to bigger things. During the course, not only the project itself, everything was very practical. Delivering a project and learning about something that was not far from our reality gives a very good feeling I have never experienced and it was very nice and we hope you [the professor] continue to do this work with many generations of students (Solar Post Project Pupil).

Working with the innovation zone demands outlined a path, organized propositions and objectives guiding the collectivity and helped it to establish its goals. As students worked in partnership with ZISPOA - an entity and a movement - the group, as a collective, perceived the value and purpose underlying their actions. The mission was to support ZISPOA, thus, there was a sense in most actions as well as a greater objective to pursue, which was to make the innovation zone the most sustainable place in Latin America by 2020. Such mission fostered students, professor, tutors and

coordinators' sense of collectivity and, as a result, the related actions ended up being collectively supported and socially recognized.

Gherardi (2012b) states those are the practices enabling people and groups to learn in practice. Making something tangible by engaging people in practical activities, such as those resulting in installing the solar post at the Business School, shows a direction for teaching-learning processes about sustainability. Planning small, more perceptible projects, or bringing the full context and objectives of continuity to students can indeed improve the quality of learning experiences.

For Billett (2015a) and Billett, Cain and Hai Le (2018), students' involvement with the construction of knowledge and experiences is what actually promotes learning, it is so as co-creation processes can be a possibility and an invitation to know things and to do them together. Collaborative processes are unstable and turbulent, and usually generate unpredictable demands due to its non-prescriptive nature. Nonetheless, professors and students need to understand this nonlinear context as a possibility for learning and something continuously remade in the situated action.

4. Theoretical and Practical Implications

A challenge became evident throughout this study. Metaphorically, the SMC course was like a box delimited by one a semester and used to leave behind an effort of collective building the textures performed there. The practical weaving processes located in the collectivities of each class ceased to exist when the school period came to an end. Later on, new actors and other semesters would be built from the historical-cultural anchoring (Gherardi, 2012b) of the discipline. However, where would the continuous fluid movement of construction collective textures dissolving in each semester be? Considering the disciplinary context of university education, would all the practical elements be built and deconstructed each semester?

From the notion of knowing-in-practice, Gherardi (2012b) incorporated elements such as, for example, the pragmatic posture, i.e., a way to acquire knowledge in action. In this regard, learning and knowledge would be constantly constructed and reconstructed by the daily practices of a collectivity. For that, it would be necessary to maintain and reproduce the community of practitioners, since the participation in a practice would be a form to acquire knowledge in action as well as an alternative to change/perpetuate such knowledge and to produce and reproduce this community (Corradi et al., 2010).

Moreover, curricula constituted of isolated and unconnected disciplines do not favor the association of material, mental, social and cultural elements for the construction of both the social and natural world. This aspect appeared strongly in the students' discourse, when they verbalized the difficulty of locating, throughout the course, some other discipline with activities and reflections that could be articulated with those of SMC. The students coming and going each semester find it difficult to characterize themselves as a collectivity that would connect while in action and weave their practices. For Gherardi (2015b), practices are not an accumulation of activities, they are socially supported ways of doing things that can be dynamically produced and reproduced.

The teaching-learning processes about sustainability would require an active work of weaving elements (people, things, technologies, tools, ideas) so that the connections could be maintained (Gherardi, 2006) and be repeated, stabilized and institutionalized. Therefore, educational contexts would need to provide experiences involving sustainable practices and critical reflections on ethical practices throughout students' school lives (Santamaria-Rodrigues et al., 2019). Sustainable practices, for example, need to be recognized by a community and supported by an ethical and aesthetic normative basis (Gherardi, 2012b, Price, Gherardi, & Manidis, 2020).

Limited classroom practice has led to the connection with broader, interconnected practices (Gherardi, 2012b) and to there cognition of the political nature of learning processes. In the first SMC meetings, some students revealed a discomfort with the absence of social and environmental issues throughout their graduation. In this regard, Fenwick (2010) asks who is interested in learning and what would be relevant to learn? What for and to whom would the knowledge about sustainability be useful for? Why aren't there relevant topics to students' development as citizens been addressed since the beginning of the undergraduate course in Business? Why do they appear isolated at the end of the course? Why are there four subjects on Economics and only one on Socio-environmental Management?

The sociological perspective recognizes that conflict rises from power relations inherent to the relationships of agents forming the collectivity. Learning is something produced and reproduced in social relations and in individuals' daily practices, thus, there is no social learning outside power/knowledge relations (Gherardi & Nicolini, 2001). In this perspective, discourses in the educational field are often pre-selected and based toward systematic learning and guided by norms and regulations. Planning and systematization of learning processes have a specific power/knowledge structure

supporting and perpetuating them as a power discourse, although other discursive positions are also possible.

For sustainable practices and critical reflections about ethical practices to be intertwined, it would be necessary to treat Sustainable Education (Sterling, 2004) as a historically and culturally constituted Social Practice within a texture of practices situated where different actors, rationalities, and ways of doing things meet (Gherardi, 2015a). The construction of Sustainable Education as a Social Practice (Gherardi, 2015a) therefore pervades the political nature of learning and its power relations, since each project is always a political-pedagogical construction involving all actors working in higher education (State, universities, organizations or professional associations). Therefore, the exercise of reflexivity about the production of knowledge as well as the discursive positions of all these actors would activate the process of change.

By transposing the idea of education as a social practice into the context of sustainability, a teaching-learning process of sustainable practices could only be produced when different actors - regulatory agencies, knowledge generating institutions, professional associations, and public, private, and non-profit organizations - engendered collective agreements to socially build a constellation of sustainable practices. In a joint and collaborative way, the actors would need to act reflexively in different fields of knowledge.

5. Final remarks and recommendations

Our findings revealed a dynamic and heterogeneous interweaving between contextual elements (people, technology, ideas, speech and actions) present in classroom actions. In this regard, the experiences offered in the regular university curriculum, without connection to a broader educational context, make it impossible to stabilize and sustain knowledge about sustainability.

In this study, we have identified that understanding the ways in which sustainable management education practices are enmeshed in particular settings, can shed light on opportunities to learn and implement such practices, as they emerge in situ as a texture of practices (Gherardi, 2006). When Sustainable Education is seen as situated practices, the focus is not on what Sustainable Education 'is', but 'how' it is done and what 'does' - as producers of sociomaterial effects. The implicit meanings become embodied and transpire in discursive practices and in sociomaterial practices.

We conclude with a call for a deeper understanding of everyday "doings" when examining sustainable education. A focus on situated education practices, provides insights into whether in situ practices are affording more or fewer opportunities for student participation and learning of ethical, responsible and sustainable management practices. Without such understandings, we conclude, there is scant opportunity for addressing the kinds of changes in doing "Sustainable Education" required in an increasingly resource-fragile world.

It is so as each context is particular, and it is not possible to replicate processes as well as prescribe norms and procedures applicable to all situations. Nonetheless, the constant craftsmanship of experiences needs to involve actors and to engage them in projects as well as in actions making sense and, to a certain extent, these practices need to be structured to carry out practical activities with tangible results.

Accordingly, the collective construction of reality based on reflexive, collaborative processes with tangible results would be a possibility of learning and building knowledge about sustainability. Thus, knowledge and action were notices in the speech when students reported the substitution of unsustainable practices by other sustainable ones based on SMC experiences.

Moreover, Sustainable Education needs to recover sensitiveness so knowledge can be constructed. Both university and classroom space reproduce organizations and remove body expressions as well as perceptions through the senses from students, in as much as the priority given to technical and normative knowledge dehumanizes and leaves aside pre-verbal, emotional and affective knowledge.

Therefore, reflexivity is another way to understand social learning about sustainability. In this sense, new discursive and political-pedagogical, less normative, specialized, and individual positions of education and sustainability could collaborate with the construction of knowledge. Furthermore, we consider the deepening of studies involving learning about sustainability to be essential as well as its relationship with technology, sensitive knowledge, history and culture, reflexivity, and politics. Finally, the reflections started here can be understood and analyzed in different educational contexts such as postgraduate courses or MBAs.

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