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# Sustainability and Universities. Re-orienting Higher Education, Re-orienting Teaching

**ABSTRACT:** The aim of this paper is to provide a relevant and timely argument in a debate on the role of the university in fostering sustainable development through academic teaching. The paper will relate to the specific learning outcomes defined for the course. It will discuss a specific area of teaching sustainability in higher education, contributing to the educational development by providing a critical overview of the ontological and epistemological challenges of sustainability in a broader context of institutional and structural forces framing the process of academic teaching and learning. It will problematize pedagogical work around sustainability issues, locating it in a macro and mezzo level of current challenges facing by universities all over the world. In particular, it will problematize and discuss the role of the university as well as concrete educational situations in relation to sustainable development. Through the argumentative review, it will examine three statements: (i) Lack of conceptual consensus on what sustainability is; (ii) Contradictory attempts and ideas as to how successfully include sustainability into higher education; (iii) Systemic contradictions between teaching sustainability in higher education and prevailing, a dominant academic culture that produce pedagogical challenges. It will conclude by providing two vignettes of academic practices related to teaching sustainability to demonstrate how pedagogical challenges are embedded in the institutional logic of higher education and cannot be addressed without reforming the system in the first place.

**KEYWORDS:** sustainability, higher education, academic teaching and learning

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## INTRODUCTION

Agenda for Sustainable Development (ASD) sets in motion a challenging and demanding set of goals. It calls for joint efforts of individuals, communities, and organizations to tackle those challenges. As social actors universities and higher education institutions (HEI) are responsible for contributing to the development of society, yet, having their primary focus located historically in the area of research and education, they are often struggling with ideas of public engagement, and are under pressure to demonstrate their value, when it comes to the contribution to society. As pointed out by Field et al. (2016), these trends result in the need for the development of an overall university policy, which answers different societal expectations and balances internationalism and regionalism, the need to be at once global and local (p.1).

The authors point to six possible areas and ways broadening the engagement of modern universities in social life and its development (Field, 2016, p. 2–4). These are: (i) university's relations with business, industry, public and non-governmental sectors; (ii) strengthening various communities as "change agents in society," including the leaders of these communities by providing critical knowledge in order to implement basic human values, such as human rights, access to education, social justice and social competences for action in a diverse and often conflicting society; (iii) an ageing society and engagement in adult learning and the development of intergenerational learning practices and platforms; (iv) the occupational, cultural and social diversity of the students' population, and consequently building a more learning-friendly environment, expanding teaching methods or going beyond traditional learning methods, taking into account non-traditional ways of accessing higher education institutions (e.g., the RPL's practices); (v) re-organisation/re-orientation of universities as the open learning institutions able to fulfil their third mission (beyond education and research) and the professionalisation of that part of the university staff that can work and build relationships with external actors and diverse student groups; (vi) partnerships between universities and stakeholders, creating practices, solutions, and platforms for such cooperation.

Looking at how comprehensive sustainable development (SD) goals are and what kind of expertise is needed, universities not only have a role to play but seem to be the major actors, capable of integrating various disciplines, including social sciences, earth systems sciences, public health, civil engineering, information technologies, economics, politics, law, business and much more. However, it is not only the necessary expertise, which puts universities on the spot. The idea of university social responsibility (USR), the so-called "third mission of the universities," explicitly points out the necessity of building partnerships with government, business, and civil society to take on the social challenges. Those coming along with sustainable development are more complexed and, in a way, unprecedented. It also puts a broad emphasis on learning, both individual and social community-oriented.

The undeniable need for taking action towards sustainable development by universities should be balanced by critical view on the colonization of the universities, expressed by Zizek (2010) as the urge to subordinate higher education to the task of solving society's concrete problems through the production of experts' opinion. Having in mind neo-liberal entanglement of such agendas and looking through the lenses of the critical theory, social practices of universities can also be seen as an example of education allying itself with the system rather than the lifeworld, being the part of the apparatus of the state. Some critical researchers stress the need for universities to become a community of communicative action, which will protect them from economy and state colonization (Fleming, 2010, p. 122–123). The university is responsible for communicative education, which in consequence builds the learning society and does not only train in additional skills desired by economics or the career development and confirmed by subsequent certificates. Researchers prove that "(...) the University is in need of decolonization by having particular kinds of free, critical conversations" (p. 123).

Does education for a sustainable future carry a potential for the decolonization of universities and restoring their functions of socialization, the critical transmission of culture, political consciousness, and social integration? If, indeed, teaching sustainability requires reforming higher education institutions, there is definitely a reflective space and transformative potential here. This paper is an attempt to initiate the discussion on the challenges of teaching sustainability in HE, keeping in mind the link between i) broader, ontological and epistemological dimensions of the phenomena and ii) specific, contextualized teaching and learning practices.

## METHOD

An argumentative review will be explored as a method to address the problems stated in the introduction. This form examines literature selectively in order to support or refute an argument, deeply imbedded assumption, or philosophical problem already established in the literature (Larabee, 2019). According to Larabee (2019), given the value-laden nature of some social science research, argumentative approaches can be a legitimate and important form of discourse. Given the discur-

sive nature of sustainability as a concept itself, as well as the high significance of the topic, this approach seems to resonate with both the ontological and epistemological dimensions of the phenomena in question. Argumentative types of reviews are also often employed, even if not always in an explicit way, in positional papers, to embed their rationale in existing studies and to highlight findings of high relevance for the argument discussed. To address the problem stated in the introduction (challenges in teaching sustainability in HE), three arguments will be discussed constituting the structure of the paper:

1. There is a clear lack of conceptual consensus on what sustainability is;
2. There are contradictory attempts and ideas as to how successfully include sustainability into Higher Education;
3. There are systemic contradictions between teaching sustainability in HE and prevailing, the dominant academic culture that produce pedagogical challenges.

However, it has to be expressed that argumentative review carries a particular limitation, as such an approach can also introduce problems of bias when they are used to make summary claims (Larabee, 2019). To address these limitations, in argument 3, two vignettes will be introduced instead of the summary claims to illustrate the pedagogical challenge by bringing specific cases of sustainability-related practices.

**Argument 1: A Clear lack of conceptual consensus on what sustainability is.**

Sustainability as a concept is highly problematic, extremely elusive, and slippery, as pointed out by Dymitrow and Halfacree (2018). As explained by Adams (2005, as cited in Dymitrow, Halfacree, 2018), it is a quest set for humanity to attain the long – term continuity of that which is valued in the world, maintaining the best of what is there already, but allowing and even promoting changes for the better.

In many documents, sustainability is rephrased and addressed as "sustainable development" due to the highly influential Brundtland Report (1987). Sustainable development is "(…) *understood as the type of development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" (W..C…E…D…, 1987, as cited in Leal Filho et al., 2018). On the one hand, it put emphasis on the holistic idea of sustainability, but while addressing specific challenges, relates separately to economic sustainability, ecological sustainability, and social sustainability, also known as a triple bottom line (TBL) or 3P – an acronym of "people, plane, profit," It already highlights the difficulty with coining one definition: here we face the ontological situation of a human-centered approach where growth is unquestionable; however, humankind needs to accept the responsibility and take preventive measures. Anthropocentric approach with human needs as central is also visible in Sterling's definition of sustainable development (2003, as cited in Leal Filho et al., 2018) understood as "*(…) the process that envisions a desirable environment in which living conditions and resource – use continue to meet human needs without undermining the existence of natural biotic system*" (p. 713).

These difficulties were tackled by producing more and more definitions. There were already over 70 different definitions for sustainable development in 1992 (Lozano, 2008, as cited in Ashrafi et al., 2018), and the number rise to almost 300 by 2007 (Johnston et al., as cited in Ashrafi et al., 2018). Still, the prevailing and most cited is the version proposed in the Brundtland Report, even though it may not highlight underlying complexities and contradictions of sustainable development (Ashrafi et al., 2018, p. 673).

Looking at the complexity of sustainability as imperative and admitting its internal dichotomies between global and local perspectives, discipline discourses, conflicting values and actors, many scholars (such as Wals, Dymitrow, Halfacree), refers to sustainability as a "wicked problem." Horst Ritter and Melvin Webber while reflecting upon the challenges of social planning, coined the term in the '70s. Briefly, "wicked problem" is understood as a type of problem that is difficult (or impossible) to solve and even hard to name, to begin with. "Wickedness" lies in the inability of finding and applying a solution due to complexity and interrelatedness. Peterson (2009, in Dymitrow, Halfacree 2018) summarizes Rittel and Webber's explanation of what makes the problem "wicked": (i) lack of definition and more than one explanation; (ii) tendency to be both the symptom of other problems and a cause of a different one; (iii) no template to follow as every wicked problem is unique; (iv) scientific strategies are unhelpful as wicked problems are social inventions (so there is a built-in – imprecisions in the concepts); (v) attempted solutions are usually overly narrow and limited one-shot efforts; (vi) resolving wicked problems entails a huge level of commitment and responsibility (p. 9–10).

Concluding on the wicked problem of sustainability, Dymitrow and Halfacree (2018) made it evident that, if we accept the framework of Rittel and Webber, we will not produce closed, definitive definition of sustainability due to the inability to reduce it to simple representation that comes with prescription and solution. Others would state that it is by definition –*ill-defined concept* (Wals, Jickling, 2002) or *contested concept*, politically intertwined and enabling dominant yet over-simplified analyses (Connelly, 2007).

Additionally, ill-defined, open nature of sustainability may be perceived both i) as a weakness – as it produces vagueness, and ii) as a strength – as it allows dynamic definition and re-definition in search for meaning in local contexts. Some state it comes with the price: by accepting ill-defined nature, sustainability is at risk of losing its action-guiding power (Christen, Schmidt, 2012 as cited in Ashrafi et al., 2018). This fear of dealing with the ill-defined concept in HE would, in my opinion, affect the teaching practices in at least two ways. It may produce either rejection of sustainability as non–scientific concept or the urge to produce a narrow, instrumental definition of sustainability and sustainable development.

But Boons and Roome (2000, p. 53, as cited in Posch, Steiner 2006) state that:

> (...) the concept of sustainable development [...] appeals to many people precisely because the 'openness' of the definition enables people to construct and contrib-

*ute to the process of defining what sustainable development entails. This is its most important feature, because it enables actors who wish to work on the goal and process of sustainable development to be involved in discussion of what the concept means to the parties involved.*

In addition, Wals and Jickling (2002) emphasizing the heuristic potential of sustainability as the ill-defined concept. Both authors believe that it may play a salient role in academic teaching, as according to them, sustainability has many faces that need to be unveiled and confronted in the classroom to make the students realize that sustainability is as complex as life itself (p. 227).

Taking a critical and discursive stance on the concept of sustainability will enable the heuristic process and invite questions, as sustainability, with all its potential, produces many dilemmas and calls for critical reflection.

These dilemmas need to be addressed in a deliberative, critical way, and it is hard to imagine a better place to foster such skills than HE. Regardless of vagueness and the ill-defined nature of sustainability as a concept, we still need to work on it and make a continuous effort toward the more sustainable future. It is indeed a demanding task, as "(…) *this imperative must involve disentangling substance from instinct and facileness from complexity, especially in cases where knowledge is incomplete, fragmented or contradictory"* (Dymitrow, Halfacree, 2018, p. 11). Let us explore in the next section, whether higher education institution is indeed in the position of accepting such a challenge not just as a political cloak, but as a stepping stone toward more systemic changes.

**Argument 2: There are contradictory attempts and ideas as to how successfully include sustainability into Higher Education.**

Since the publication of the Brundtland Report, calling for joint actions of multi-stakeholders towards a better future (through United Nations Agenda for the 21st century, until current Agenda for Sustainable Development 2030) issues of sustainability were getting political, social and scholarly relevance and attention at the global and local level. Education was quite early identified as an essential condition and pre-requisite of advancing sustainable societies, starting with the focus on environmental issues, to gradually move towards a comprehensive model linking economic and social development with issues of ecology and clean environment.

In 2012, the United Nations was celebrating and promoting a decade of education for sustainable development (ESD), reviewing a set of activities taken by the HE institutions, and monitoring the progress. In addition, multiple networks and frameworks of HE bodies acting towards sustainability were established. With the growing importance of SD issues and initiatives taken, there is a growing awareness of the fact that achieving sustainability, due to its ill-defined nature and complexity is not feasible through simplified, technical *measurement – application – impact growth* model. It will rather require mass-scale re-configuration of all social systems, actors as well as the relationship between them (Wals, 2014).

There is undoubtedly enormous potential in HE, but also obstacles and barriers embedded in organizational structures. With all its capacity to become a social hub acting between local and global communities, having knowledge, expertise, and skills in place, HE institutions need to transform themselves first, facing challenges of instrumentally oriented reforms aiming at efficiency, narrowly understood employability and privatization. As pointed by Wals (2014), these trends are not always conducive for systemic change towards sustainable universities; therefore, critical reflection and deliberative actions are required.

Barriers, obstacles, and challenges faced by the HE institutions in implementing sustainability are well researched and clearly established, both at the global level, looking for the structural aspects as well as locally – through the multiple comparative case studies, focused on the role of planning. The results are not surprising. As expected, factors such as lack of institutional support, funding, and staff, poor employee motivation, time constraints, no policy in place were reported worldwide and confirmed regardless of geographical locations (Leal Filho et al., 2017, Leal Filho et al., 2018, Avila et al., 2017). It calls for a systemic approach and a specific type of organizational learning to address those challenges. Tensions and trouble with introducing sustainability in classrooms will only mirror those faced by the universities with its culture and institutional rationality. Yet, the tensions are unavoidable, as sustainable development, in order to be effective, must infiltrate all aspects of the university, including educational and operational elements. According to Velázquez et al. (2006), truly sustainable university can be described as:

> (…) higher educational institution, as a whole or as a part, that addresses, involves and promotes, on a regional or a global level, the minimisation of negative environmental, economic, societal, and health effects generated in the use of their resources in order to fulfil its functions of teaching, research, outreach and partnership, and stewardship in ways to help society make the transition to sustainable lifestyles (p. 812).

Behind the optimistic rhetoric and faith in the power of the university, there are critical concerns and sceptical voices pointing out some of the changes HE is currently going through. Wals (2014), notices that it was already established and demonstrated how difficult it is for schools, companies, universities to re-design their systems towards sustainability. The case of education is a particular one here, as sustainability actions are often going against current trends in reforms towards efficiency, accountability, privatization, management, and control (Wals, 2014, p. 14). A neoliberal discourse of efficiency, measurement obsessions, and increasing instrumentalization of education do not correspond well with the need for system thinking, holistic approach, interdisciplinary dialog, and cross-boundary learning, required for sustainable societies to thrive. Both the teachers and the students, while bringing sustainable thinking into the classroom, often experience those dichotomies.

**Argument 3: There are systemic contradictions between teaching sustainability in HE and prevailing, a dominant academic culture that produces pedagogical challenges.**

The conceptual approach to sustainability will have inevitable consequences for pedagogies. If we promote a fixed definition of sustainability, expert-driven, it will produce instrumental approaches with learners as passive receivers. If we accept ill-defined and "wicked" nature of it, we will foster emancipatory approaches with facilitators and co-learners. This section will be addressed by presenting two vignettes, constituting time span development of thinking and acting in a sustainable way when it comes to academic teaching, discussing also the institutional context of the teaching, in line with a systemic approach. Presented vignettes will be illustrative, presenting ways of thinking about sustainability in higher education with the focus on academic teaching. Both examples will address existing contradictions between sustainability as a wicked problem and university as a structured and hierarchical institution, often reducing sustainability to a simple list of technologies and behaviours, "best practice" adoptions, using 'codify and convince' strategy (DuPuis, Ball, 2013).

**Vignette 1**

**Early experiences with integration of sustainability in HE by van den Bor et al (2000, as cited in Wals, Jickling 2002).**

**Key lessons of EU Socrates Thematic Network for Agriculture, Forestry, Aquaculture and the Environment (AFANET ).**

For some scholars and academics not linked directly with sustainability or environmental issues, institutional policy pressure on introducing sustainability in HE may seem sudden, but in fact, such attempts had a long history at the universities all over the world. Among the early projects tested and sustainability approaches experimented with, the European case of van den Bor, Holen, Leal Filo and Wals (2000, in Wals, Jickling 2002) is an interesting attempt of integrating sustainability into the curriculum of agricultural education. It is important to notice that the approach presented here is focused on teaching *about* sustainability.

The project was embedded in and resulting from the activities of EU Socrates Thematic Network for Agriculture, Forestry, Aquaculture and the Environment (AFANet). As a summary of the network's experience, key lessons were formulated and explained, when it comes to integrating sustainability in academic curricula. Lessons from two decades ago are still relevant and even more pressing, since the managerial turn in the HE reform across the globe.

(1) *Integrating sustainability pre-supposes the re-thinking of institutional missions.*

This lesson grows from still adequate call to address structural and institutional challenges including the purpose or a mission of universities. Teaching itself, even if modernized and sustainability – relevant, will not lead to a major social change if other social structures, including universities as an institution and social actors, will not be involved in the process. It has to be a whole society task that addresses

all macro-, meso-, and micro – levels. Otherwise, as stated by van den Bor (2000 in Wals, Jickling 2002), mission statements of universities are just a public relation tool.

(2) *It is no use crying over vague definitions* as 3) *Sustainability is as complex as life itself.*

This issue of ill-defined nature of sustainability is still relevant and present in a debate on how to introduce it into HE. Yet, from the teaching perspective, it is seen more as an opportunity than a weakness as it opens the door to deliberative, critical approaches that are also preconditions of more sustainable societies. Moreover, as a "wicked problem", sustainability is also more of "a social invention" than a scientific concept (Dymitrow, Halfacree, 2018); therefore, it is deeply rooted in socio-cultural domains of our lives and invites conflicting interests and sets of values. It also leads to one of the main challenges of teaching sustainability in HE: interdisciplinary, systemic and holistic approaches are key foundations, but current competitive and discipline driven academic culture simply does not promote such attitude. Disciplinary thinking in silos also makes it difficult, unless there is already a community in place, a living product of bottom-up, grass-roots activities.

(4) *There is no universal remedy for curricular reconstruction. The inclusion of aspects of sustainability in academic programmes is very much culturally defined.*

This lesson also resonates with disciplines and academic cultures of the departments, universities as well as national contexts. However, since 2000, the pressure is growing, and many universities introduce policy-oriented, prescribed recipes and standardized approaches that do not support openness and cultural diversity. Hence the risk of instrumentalizing sustainability and producing resistance towards it because of being perceived as a political rather than social agenda.

*(5)Teaching about sustainability requires the transformation of mental models,* and *6) demands serious didactical re-orientation.*

Because of the entanglement of sustainability into a debate about normative, ethical, and spiritual convictions, teaching will require more than just passing expert knowledge on sustainability. The transformative learning theory of Jack Mezirow (1991) is often employed by past and current sustainability scholars as it requires critical insight into the way we think and democratic debate on the very foundations of our convictions. To be part of such a learning process, a teacher and a student are in equal partner positions where both need to expose and analyze their own sets of values, norms, and presumptions about the world. There is a consensus these days around academia, about the type of inquiry in the classroom, with more involvement of the students and proactive orientation. Yet, it is still very often articulated from the efficiency agenda, as it is expected to maximize learning outcomes achievements.

Focusing on *didactical re-orientation,* understood as a new approach to pedagogy, specific requirements were formulated by Wagner and Dobrowolski (2000, as cited in Wals, Jickling, 2002) pointing at the need for a didactical re-orientation:

a. sustainability requires a focus on competencies **and higher thinking** skills;
b. sustainability requires a foundational appreciation of **holistic principles**, critical system understandings, and practical systemic competencies;

c.  sustainability requires an **early start**, i.e., well before students enroll in universities (from kindergarten through high school);

d.  sustainability requires **critical reflection** on one's own teaching;

e.  sustainability requires **self-commitment** and taking responsibility;

f.  sustainability requires the **empowerment of learners** by enabling them to work on the resolution of real issues that they themselves have identified;

g.  sustainability requires appreciation and **respect for differences**;

h.  sustainability requires **courage** ("dare to be different");

i.  sustainability requires **creativity** as there are no recipes.

As highlighted by Wagner and Dobrowolski (2000, as cited in Wals, Jickling, 2002), this re-orientation requires many opportunities for staff members and students to embark on new ways of teaching and learning. Again, a clear link is made between teaching practices, academic culture, and institutional provisions.

Even though the vignette illustrates the practice that is almost 20 years old now, one may conclude that universities have not made significant progress when it comes to actual re-orientation, both in teaching (referred here as didactic) and transforming overall academic culture. Yet, there has been a shift in reflecting upon sustainability as the teaching and learning challenges.

The second vignette will present and discuss a decade older example of a similar struggle with new ways of teaching and learning when it comes to sustainability. What needs to be emphasized is the fact that the second vignette demonstrates a definite shift from teaching *about sustainability* (exemplified by the first vignette) to teaching *sustainability*.

**Vignette 2**

**Teaching Sustainability as an emerging project. Reflexive pedagogical design of Sustainable Engineering and Ecological Design (SEED) consortium from the University of California, Santa Cruz by Melanie DuPuis and Tamara Ball (2013).**

This vignette constitutes an example of a curricular design approach that, according to DuPuis and Ball (2013), attempts to maintain both i) canonical disciplinary learning about the techniques of sustainability (sustainability as *What*) and ii) training in the reflexive skills necessary to explore sustainable change through "post-normal" learning processes (sustainability as *How*). "Post-normal" refers here to the contextual, relational, and tacit knowledge that escapes codification (unlike fully codified knowledge of sustainability as *What*) as well as to multiple ways of knowing. As such, it poses the pedagogical challenge of dealing with multiple epistemologies in curriculum design, teaching, and learning.

SEED consortium has been experimenting already with pedagogy that opens up learning space for more reflexive nature of sustainability, where the elusive task of defining sustainability constitutes an opportunity to expand the ways of thinking about the world, rather than a problem to solve. The key question remained on how

to design curriculum around an unfixed concept while building upon focused and engaging pedagogy.

The challenge was addressed by proposing reflexive pedagogy based on four modes of knowing, including one of teaching "normal" science in a "fact-based" mode and three "post-normal" modes of knowing: subjective, discursive (or inter-subjective) and practice-based knowing. They are arranged in the following sequential way for the purpose of curriculum design: 1. Subjective knowing, 2. Intersubjective knowing, 3. Codified knowing, and 4. Practice-based knowing. Educational underpinning came from the work of John Dewey, Jerome Bruner, and Paolo Freire, following socio-cultural theories of learning and teaching, promoting active, experiential learning of collaborative nature. The table below provides a brief summary of each step, linking it with specific epistemology, explaining the concept and attributes of knowledge, pedagogy that translates the ways of knowing into teaching and learning activities, and competencies and processes relevant for sustainability, to be developed through each step and based on respective pedagogy.

*Table 1.* Four modes of knowing based on DuPuis and Ball (2013)

| | Epistemology | Pedagogy | Sustainability relevant competencies and processes |
|---|---|---|---|
| **Step 1. Subjective knowing** | Situated, localized embodied knowledge based on personal experience, plural, as different ways of knowing can coexist (rational, tacit or emotional), even if one dominates | Journaling as a way of naming and revealing one's personal knowledge and assumptions | Reflexivity, Interpretation Empowerment |
| **Step 2. Discursive knowing** | Knowledge produced through social interaction and deliberation among collaborators with different subjective knowledge, neither individual nor collective, but coproduced. | Critical thinking, discussion and dialogical group learning | Deliberation, Collaboration, Negotiation, |
| **Step 3. Codified knowing** | Fact-based, codified, standardized knowledge delivered from experts to non – experts | Banking model of education, transmission of knowledge | Research, Analysis Evidence gathering |
| **Step 4. Practice – based knowing** | Knowledges produced through robust and continuing engagement in understanding of the complex interrelations that organize decentred networks of activity | Problem-based learning, group projects | Innovation Creativity Transformation |

Starting point of developing "post – normal" pedagogy was the joint statement of perceiving lack of definition of sustainable development not as a threat, but as "(..) *an opportunity to advance and implement alternative approaches to teaching and learning 'post-normal' or 'Mode 2' science*" (DuPuis, Ball, 2013, p. 64). This approach to the curriculum designed was applied and tested in two academic courses (upper-division

level): *Sustainability and Social Change,* and *Sustainability Engineering and Ecological Design.* After examining the results from the students, it was concluded that curriculum design based on multiple ways of knowing turned out to be successful in achieving the following:

   1) it exposed students to multiple frames of understanding when it comes to distinguishing unsustainable from sustainable practice;

   2) broadened the scope of criteria that any student might apply;

   3) challenged and engaged students through problem-based dialogue to work with others;

   4) presented sustainability as a complex and discursive rather than reductive concept (DuPuis, Ball, 2013, p. 71).

The key challenges identified from the pedagogical point of view were focused on the difficulties of assessing reflexive, noncodified students learning as multimodal pedagogy requires a different approach that may be difficult or risky, especially for the teachers comfortable with the traditional role of the knowledge delivering expert or being an authority. Such teaching practices are linked with the dominant organization of learning within the university setting and often are produced and reproduced through acculturation patterns.

Yet, the risk was worth taken. Facilitating students to practice multiple ways of knowing sustainability, they come to understand the "How" of sustainable practice, process, and design, while allowing the "What" of sustainability to emerge from group interaction in a collaborative context. This orientation allows to experiment with "sustainability as practice" without the need for a fixed definition to begin with (DuPuis, Ball, 2013).

This successful experiment still sends a clear message when it comes to the structural barriers produced by the university as an institution. As pointed by authors:

> *In order for a university to research and teach sustainability through an interdisciplinary, dispersed, multimodal learning pedagogy, curriculum designers will need to overcome a long and entrenched history of presenting knowledge as "what": as immutable information held by experts and segregated into siloed disciplinary tracts. (…) New collaborative and reflexive pedagogies to train students in post-normal modes of knowing will hopefully not just impact learning about sustainability, but also transform the university into a learning institution that gives students the competencies to meet the broader challenges of an increasingly complex world* (DuPuis, Ball, 2013, p. 74).

The aim of this paper was to provide an argument in a debate on the role of the university in fostering sustainable development through academic teaching. Three statements were examined using relevant literature: lack of conceptual consensus on what sustainability is; contradictory attempts and ideas as to how successfully include sustainability into higher education; systemic contradictions between teaching sustainability in higher education and prevailing, dominant academic culture

that produces pedagogical challenges. Two vignettes of academic practices related to teaching sustainability were discussed and analysed, to demonstrate how pedagogical challenges are embedded in the institutional logic of higher education.

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## ZRÓWNOWAŻONY ROZWÓJ A UNIWERSYTETY. REORIENTACJA, SZKOLNICTWO WYŻSZE, NAUCZANIE REORIENTACYJNE.

**ABSTRAKT:** Celem niniejszej pracy jest przedstawienie istotnego i aktualnego argumentu w debacie na temat roli uniwersytetu w promowaniu poprzez nauczanie akademickie zrównoważonego rozwoju. Dokument ten odnosi się do konkretnych efektów uczenia się zdefiniowanych dla cyklu kształcenia. Omówiony zostanie konkretny obszar nauczania zrównoważonego rozwoju w szkolnictwie wyższym, przyczyniający się do rozwoju edukacji poprzez krytyczne spojrzenie na ontologiczne i epistemologiczne wyzwania związane ze zrównoważonym rozwojem w szerszym kontekście instytucjonalnych i strukturalnych sił tworzących proces akademickiego nauczania i uczenia się. Praca pedagogiczna zostanie sproblematyzowana wokół kwestii zrównoważonego rozwoju, umiejscawiając na poziomie makro i mezzo obecne wyzwania stojące przed uniwersytetami na całym świecie. W szczególności zostanie sproblematyzowana i omówiona rola uniwersytetu jako konkretnej sytuacji edukacyjnej w odniesieniu do zrównoważonego rozwoju. Poprzez przegląd argumentów, zostaną przeanalizowane trzy stanowiska: (i) Brak koncepcyjnego porozumienia co do tego, czym jest zrównoważony rozwój; (ii) Sprzeczne próby i pomysły co do tego, jak skutecznie włączyć zrównoważony rozwój do szkolnictwa wyższego; (iii) Sprzeczności systemowe między nauczaniem zrównoważonym w szkolnictwie wyższym a dominującą, kulturą akademicką, stwarzającą wyzwania pedagogiczne. Praca zakończy się przedstawieniem dwóch epizodów praktyk akademickich związanych z nauczaniem zrównoważonego rozwoju w celu wykazania w jaki sposób wyzwania pedagogiczne są osadzone w instytucjonalnej logice szkolnictwa wyższego, i że nie można się nimi zająć bez zreformowania w pierwszej kolejności systemu.

**SŁOWA KLUCZOWE:** zrównoważony rozwój, szkolnictwo wyższe, akademickie nauczanie i uczenie się