

“My idea of Sustainability”: outlines from an experiment with students at the University of Trento (Italy)

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Abstract

Sustainability is still an elusive and fluid concept which requires to be better defined and explained in its key dimensions. In this regard, the role of higher education is of crucial importance today. A critical prerequisite when trying to integrate sustainability-related topics into university courses is to understand students' opinions and needs in this regard. The paper illustrates an experiment conducted with students of the bachelor's degree in environmental engineering at the University of Trento. Based on her own teaching experiences and on the activity within a university working group on sustainability, the author makes some considerations on the challenging task of designing an interdepartmental course on sustainability at the University of Trento

Keywords: Sustainability; Higher Education; University of Trento.

1. Introduction

The discourse on sustainability and its corollary, sustainable development, has gained new impulse over the last few years, as the 2030 deadline approaches and the need to try to implement the 17 Sustainable Development Goals (SDGs) endorsed by the global community (United Nations 2015) becomes increasingly urgent. Nevertheless, sustainability is still an elusive and fluid concept, and, despite its pervasiveness and popularity, requires better definition and explanation in its key dimensions, taking into careful account possible interlinkages, synergies and trade-offs (Mensah, 2019, Ninno Muniz et al. 2023, Schneider et al., 2019, Vogt & Weber, 2019). Tackling this challenging goal entails a clear multi-disciplinary and scientifically based approach being adopted, as is now widely recognized by academics and practitioners (Plail, 2024, Schneider et al., 2019). In fact, the plethora of definitions and the often inappropriate, sometimes contradictory, use of the term can lead to confusion, risking the concept of sustainability being reduced to an appealing label for a product, a naïve slogan for environmental activist associations – despite the best of intentions – or an empty mantra for international agencies. All this contributes to creating a widespread feeling of discouragement,

frustration heightened by the current geopolitical situation and a kind of disenchantment about the concept of sustainability itself.

In this regard, the role of both research and higher education is of crucial importance today. Higher education, in particular, has a demanding but stimulating task and a tremendous responsibility. In a world more and more connected across place, scale and sector, the issue must be addressed with a holistic approach and requires the development of a language that cuts across the various disciplines.

2. What is going on at the University of Trento

Trento, located in the heart of the central-eastern Italian Alps, has a typical medium-sized university, in relation to the Italian average. The 11 Departments and 4 University Centers (University of Trento, 2025a), with the recent inclusion of the School of Medicine and Surgery, cover an ample range of disciplines involved in issues strictly connected with sustainability.

“UniTrento sostenibile” is the strategy of the University of Trento put in place to promote action in a wide range of areas, involving many organizations, departments and centers and a variety of stakeholders. The code of ethics of the university, approved by the Academic Senate in March 2014, makes clear reference to the principle of environmental sustainability as a general rule of conduct for all university members. Since 2015, there has been a Rector's delegate for environmental sustainability and, more recently, each department has appointed its own delegate. Initial efforts by the University of Trento to achieve sustainability resulted in the Environmental sustainability plan 2016/2018, a sort of roadmap for the management of sustainability-related processes within the university, and a first step toward the achievement of sustainability goals (University of Trento, 2025b). The Environmental sustainability plan 2025-2027 has just been completed and is about to be made operational. Between June and November 2024, two important conferences took place, hosted by the Department of Physics and the Department of Law, which took into consideration other important dimensions of sustainability. In particular, the International Scientific Workshop on Challenges of Sustainable Education, 11–12 June 2024, (proceedings in print) addressed the tricky question of how to include sustainability in curricular courses. A workgroup, of which I am part, has recently been put in place to address the problem from an interdisciplinary perspective and put forward proposals. In numerous courses, the topic has been debated for some time now, albeit from a standpoint linked to the specific disciplinary field, which sometimes limits a broader and more general understanding of the problem and makes the exchange of knowledge and experiences difficult. The basic idea is to design an interdepartmental course which is intended for students from different disciplines, with the aim of dealing with the different dimensions of sustainability, stimulating reflexive interactions and creating a common language. The content and logistical organization of such a course, and aspects related to its evaluation, are a real challenge and must

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“I consider sustainability to be synonymous with respecting certain criteria at the environmental level, and whose goal is to reduce the environmental impact of harmful human activity. I believe, too, that sustainability is an umbrella term that covers different concepts”

The long-term perspective appears clear:

“Support, sustenance, and substance are all concepts I would use to explain what sustainable means to me personally. Sustainable is that which: ‘supports’ life; is needed for, and is beneficial to, current and future ‘sustenance’—; and utilizes only those ‘substances’ that are necessary, without going to excess. Whatever is sustainable is long-lasting yet easily and safely disposed of”

A word that often occurs is «respect»:

“Sustainability means respecting the world’s ecosystems, in an effort to maintain the balance of nature”

“In my opinion, sustainability means a correct balance between man and nature, in which man is committed to respecting the environment around him”

“Sustainability is an ideal worth pursuing. It is a form of respect ... respect that, for years and years, has been sorely lacking due to indifference”

I was happy to see that after taking the ecology course, the awareness had developed that man is dependent on ecosystems:

“Personally, sustainability means, as far as is possible, being one with Nature. Even before we begin talking about ‘having a lesser impact’ or ‘making eco-sustainable choices,’ we need to rid ourselves of the idea of man as the dominant species, one that is able to control and exploit everything that surrounds him. Sustainability means, first of all, making oneself ‘as small as possible,’ in the sense of humbling oneself and understanding that we are but inhabitants of this planet we call ‘home,’ We do not own Earth; we merely share it alongside a whole series of species vastly different to ourselves. For me, sustainability is a way of thinking, a mindset ... humble, open, and kind and caring”

“... in conclusion, we need sustainability if we are to carry on living. While there are many who, sadly, feel no connection whatsoever to Nature, the truth is we are in fact intimately connected to – and practically dependent on – Nature. We need to respect her, and love her, not least because she is the source of our very existence”

Somebody stressed that pursuing sustainability involves «scaling back»:

“... to conclude, therefore, my idea of sustainability is to recoup as much material and energy as possible from waste matter, protect the environment from the effects of the presence of human beings, and, by scaling back our lifestyles, lessen our environmental impact”

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... and that sustainability implies cooperation:

“We need to stop being egotistical, to stop thinking that, just because we will no longer be here in a hundred years’ time, the problem is not ours to deal with. Instead, we need to take charge of the situation and via our behaviour try to do those things, however small, that will enable us to be more sustainable”

“Sustainability rhymes with cooperation, in my opinion, and I believe it can only be achieved if each of us is willing to make our own personal contribution. We can start by acknowledging that such contribution, however small, can and does have an enormous impact on the entire population”

“We need to put aside our egos. We need to realize that we do not exist as individuals on this Earth but are part of a community. I firmly believe the only way we can better the current situation is by starting with ourselves”

Finally, there were also indications regarding role and responsibility of higher education:

“I find the topic of sustainability covered in the Bachelor’s degree in environmental engineering only marginally dealt with. The Bachelor’s degree addresses the basics in mathematics and science needed to tackle the Master’s degree. In my opinion, aspects such as pollution, sustainability, and environmental protection should be covered in greater detail during the Bachelor’s ... This would create a greater awareness of the subject on the part of students ... Moreover, any course that deals qualitatively in subjects of this kind can stimulate greater interest not only in the degree course, but also in the department”

“Sustainability is destined to become increasingly central in the years ahead, and the subject around which I would like, in some way, to build my future career”

4. Lessons learned and perspectives

It is understandable that students enrolled in a course in environmental engineering have touched mainly on issues related to the environmental dimension of sustainability. Furthermore, considering the small sample of students whose opinion was asked (a class of 50 students enrolled in the third year), it certainly cannot be thought that the opinions expressed are representative of the entire student population of the University of Trento. Anyway, deliberating over an interdepartmental course, identifying its content and defining its structure in detail cannot fail to consider the opinions and needs of students from all degree courses and to take into account the different sensitivities towards the different dimensions of sustainability. How to integrate students' needs and expectations into the course design process? One possible way is to invite student representatives to discuss in the workgroup, but in this case, it may be difficult to have a vision broad enough to reflect the entire student population. I then came up

with the idea, shared by some colleagues, to exploit the exercise done by my students in the academic year 2023–2024, to stimulate suggestions and indications from students of all degree courses and at all levels. During these last months we are working on the creation of a roll-up containing some of the ideas expressed by the students of the Ecology course, in the form of Post-it notes that will be placed at the entrance of the various departments.

The poster, titled "My idea of sustainability", will include a sentence explaining the origin of those short texts, as well as a QR code allowing anyone who wishes to do so to express her or his own ideas and put forward issues relating to sustainability that would be interesting to address in a dedicated course. A first section, very compact, is dedicated to the collection of some essential personal data. In the second section, first of all, students are asked to express their personal idea of sustainability (this is the only open question). They are then asked to indicate, according to a five-point Likert scale, how important they think it is to include sustainability in the curricula of the University of Trento. Finally, they are asked to give their opinion (according to a five-point Likert scale) on the importance of dealing with each of a few themes proposed for each dimension of sustainability, leaving the possibility of identifying any others. The answers to the open question will be analyzed with NVIVO, a program in use at the Department of Sociology and Social Research of the University of Trento. The aim of the poster will be, first, to stimulate curiosity and raise awareness among students regarding the problem and then to collect opinions, information and suggestions that can provide useful insights and facilitate a better understanding of students' expectations and needs: a sort of compass to better orient oneself in the complexity of the students' world and to better approach, even if indirectly, young people. The total number of students at the University of Trento is around 16,000: considering the tradition of participation and activism that characterizes this university, we expect a good percentage of responses. Although it is difficult to hazard predictions, we are confident that we will be able to obtain a good data base.

Alongside the creation of the poster we have undertaken a survey at national and European level, to try to understand how the topic of sustainability is addressed in other universities. The survey is facilitated by the fact that the University of Trento is part of the Italian network RUS (Network of Universities for Sustainable Development) and the European network ECIU (European Consortium of Innovative Universities).

It will take a few months for this first step to be considered concluded. However, in October we expect to be able to discuss the first results of this preparatory work with students and colleagues, during a "lesson zero", open to the entire community of the University of Trento.

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