

Sustainability in Higher Education

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Abstract

The educational approach to sustainability represents a concern initiated more than two decades ago and aims to form that mentality that ensures the understanding of values and motivations to act for this purpose now and in the future. In academic education, it is also important for students to understand and be aware of the concept of a sustainable university. The current work is based on documentary research and aims, on the one hand, to analyze the role of university education, especially the economic one, in the formation of a behavior that supports ensuring sustainability in their future activities, and on the other hand, to highlight the steps taken in this regard by the university education units at national or international level. In this sense, the concerns of some international organizations for supporting education for sustainable development (ESD), a lifelong learning process, part of quality education are also presented. In conclusion, the efforts of different actors must be continued in order to develop in universities all over the world educational programs to sustain a sustainable lifestyles and to promote methodological and pedagogical tools to be used.

Keywords

Sustainability, education, approach, development

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Introduction

The issue of sustainability is currently particularly topical in all fields of activity, being an integral part of our everyday life that ensures our present and future. Concerns regarding sustainability started from the fact that natural resources are limited and that our role is to protect them, to ensure that they are sufficient both now and in the future and are based on three pillars, namely: environmental protection, social development and economic development. Thus, in 2015 the United Nations established for important business areas to include the Sustainable Development Goals (SDGs), what made the circular economy develop strongly in 2018. (Purcell, 2021)

Education for Sustainable Development (ESD) is a process of lifelong learning and quality assurance of education. Its purpose is the improvement of the cognitive, social and behavioral milestones of the educational process and aims at contents and results, pedagogical methods and the training environment (Zaleniene and Pereira, 2021).

The idea of this paper was generated by the perception that higher education everywhere has not yet reached its maximum potential impact for a sustainable future. The problem analyzed is not really new, but we are currently discussing new trends and challenges.

In this context, the studied aspects demonstrate the need and recommend the development of institutional communication regarding sustainability, including the promotion of values, mission and vision in the higher education institutional strategic options, given that even the job of sustainability consultant appeared on the labor market. It is otherwise obvious that economic universities have a particularly important role, but at the same time any higher education unit must have concerns and demonstrate that it acts as a sustainable entity. Most universities that have concerns regarding sustainability are simultaneously concerned with the application of these approaches at the campus level, regarding the minimization of waste, energy

consumption, protecting the natural space, etc. They aim to become a model of sustainability to influence the behaviors of staff, students and local communities (Kohl et al., 2022).

1. The context

Sustainable education is an educational approach that pursues education in the spirit of respect for the environment and the quality of life in general, thus ensuring both the present and the future of a sustainable lifestyle. With 17 goals and 169 targets, the United Nations' Sustainable Development Goals (SDGs) represent a strategically important mission for higher education worldwide. Higher education thus has a crucial role in supporting transformations towards a sustainable existence.

UNESCO encourages innovative approaches and enhances non-formal education programs through media, networking and partnerships (UNESCO, 2017).

The role of pro-sustainability education is undoubtedly to raise awareness through training of the impact of environmental challenges, issues of justice and social responsibility. These aspects must be communicated and debated in the classrooms. The specialized literature states that in the current economic-social context, the issue of sustainability provokes and stimulates strategies, structures, as well as practices in many sectors, including higher education (Tilbury, 2011).

In 2021, Dr. Wendy M. Purcell (Purcell, 2021), from Harvard University, considered that higher education institutions play a critical role in fulfilment of the goals and can do more to connect their work with the communities they serve and help create a more sustainable future.

The role of university education in this context is to gather on a common platform of dialogue participants in sustainable development, be they students or professionals in a certain field of activity.

The issue of sustainability now represents a major urgency for the development of society worldwide. Along with all other institutions from other fields of activity, universities are also faced with major challenges in this regard. Moreover, the responsibility of higher education institutions is directed towards the provision of theoretical, conceptual, methodological, formative information to contribute to ensuring that sustainability is properly understood and monitored (Vogt and Weber, 2020).

This approach aims to promote sustainable university development. But in order to achieve this desired, a global vision of the entire university institution is necessary, which includes both the basic areas of teaching regarding education for sustainable development as well as research activity and university management. Otherwise, ensuring sustainability should be seen as an interdisciplinary topic, which should also aim at the sustainable development of universities. Thus, the transformation of a university's strategies towards sustainable development requires a rethinking of its activities to support the building of a sustainable future.

The commitment of a higher education institution in terms of social responsibility also involves the involvement of interested parties and the definition of objectives and strategies within the framework of community-university partnerships. Thus, the orientation towards sustainability is associated with the reputation and the monitoring of the results, under the conditions of increasing the quality of the educational act (Figure 1).

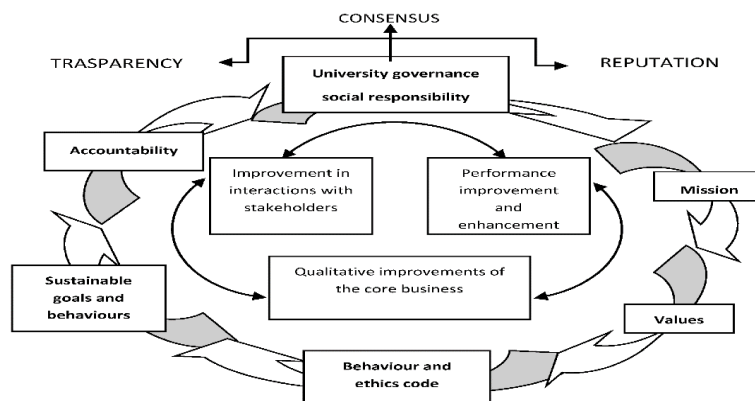


Figure no.1. The virtuous cycle of sustainable development in universities

Source: Sustainability 2017, 9(6), 914; MDPI Open Access Article

At the same time, the universities must be aware of the students' perception of the sustainability of the universities they study in and which train them as future responsible for sustainable development. There are studies that show that in this sense, universities everywhere have understood the need to build a sustainable mentality for their graduates (Popescu et al., 2020).

2. Research methodology

The study is based on fundamental research and aims to highlight new aspects of the essence of university education in the field of sustainable economic development, in correlation with the requirements of stakeholders and the challenges registered at the international level. The approach chosen in writing this paper is basically an analysis and an overview as well in what concerns the role of higher education institutions in starting and supporting actions at the level of communities in order to ensure a sustainable development for present and future.

The present work consists in a documentary exploration in order to highlight the role of the university in disseminating a culture of sustainability and affirming responsible behaviors as an indispensable ethical condition but also an opportunity to improve its image and the quality of the educational act. The broad thematic scope of the work justifies the need to study a wide base of information. That is why we approached the exploratory analysis of specialized literature and the collection of data from the review of official websites, reports, publications and related works of the universities and organizations involved in the formative approach of education for sustainability.

The research also considered the evolution of concerns for sustainability in higher education from the initial approaches to the ONU appeals.

3. Findings

Over time, higher education has demonstrated a strong commitment to moving towards sustainable development with concerns that have gone beyond just teaching itself (Kohl et al., 2022).

In 1980, Mrs. Gro Harlem Brundtland, Prime Minister of Norway, defined sustainability as a means of ensuring that present needs are met without affecting the future.. A few years later, in 1987, the United Nations established the definition of sustainable development, emphasizing the role of society to use resources carefully.

In recent years, a growing body of knowledge has been developed towards higher education to implement a sustainability curriculum in higher education, campus practices and outreach activities (Zalieniene and Pereira, 2021).

The most commonly used term is Education for Sustainable Development (ESD), launched at the World Conference on Environment and Development, Rio de Janeiro (1992). As declared in a UNESCO manifesto (UNESCO, 2002), 10 years after the formulation of the concept, education for sustainable development has become an emerging concept, in development, a new direction in education, which seeks to make the population aware of the need to assume responsibility for creating a sustainable future (Popescu et al, 2020).

The most important moments that marked the development of concerns for sustainability in higher education institutions could be considered:

- To emphasize the importance of education for increasing global sustainability in 2002, the United Nations Decade of Education for Sustainable Development was declared for the period 2005-2014;
- In 2015, the UN General Assembly adopted the 17 Sustainable Development Goals (SDGs) in the perspective of 2030, with the aim of ensuring humanity's quality of life now and in the future (Purcell, 2021; Zalieniene and Pereira, 2021);
- In 2019, as a result and inspired by the students on strike with Fridays for Future, the Scientists for Future initiative developed into a strong international network (Vogt and Weber, 2020);
- UNESCO is the lead United Nations Agency for ESD and is responsible for implementing ESD 2030, the current global framework for ESD, which takes over and continues the work of the United Nations Decade of Education for Sustainable Development (2005-2014) and the Global Program of Action (GAP) on ESD (2015-2019) (UNESCO, 2017);

- In June 2022, the Council of the European Union (EU) adopted a Recommendation on learning for the green transition and sustainable development (European Education Area, 2023);
- In 2023 the Commission is establishing a Community of Practice to connect schools, researchers, public authorities and other bodies using the new competence framework (European Education Area, 2023);
- The Erasmus+ 2021-2027 program places a strong emphasis on ecological transition and sustainability in education and training (European Education Area, 2023);
- Moreover, in the Erasmus+ annual work program for the year 2023, the priority given to projects regarding sustainability in education, the development of sustainability skills and abilities, the promotion of positive actions regarding sustainability and combating ecological anxiety, supporting the development of teachers' capacity in addressing sustainability issues is noteworthy (European Education Area, 2023).

4. Discussion

The general objective pursued by the sustainability integration process in university education is for the perception of sustainability skills to improve substantially and finally become an integral part of the educational process, so that the courses designed to develop such skills are perceived as offering a competitive advantage to both students and universities, a condition of a responsible mentality and behavior.

The issue of education is an important point of the 2030 Agenda for Sustainable Development representing an objective in itself (Sustainable Development Goal 4) and is also present as targets within other SDGs regarding health, growth and employment, production, consumption and climate problems.

It is obvious that higher education makes a major contribution to the implementation of the 17 SDGs, especially the following goals:

- elimination of poverty in all its forms everywhere (goal 1);
- ensuring a healthy life and promoting well-being for all at all ages (goal 3);
- sustainable development (goal 4);
- gender equality (goal 5);
- decent work and economic growth (goal 8);
- responsible consumption and production (goal 12);
- climate change (goal 13) and
- peace, justice and strong institutions (goal 16) (Zaleniene and Pereira, 2021).

Thus, it is extremely important to establish specific learning objectives for the different SDGs to be described in the cognitive, socio-emotional and behavioral domains (UNESCO, 2017).

In the case of higher education institutions, due to their mission, special attention must be paid to research in the field of sustainability.

There are thus three directions to follow to understand this role:

1. Sustainability research focuses on specific issues (climate change, renewable energy, biodiversity);
2. The research methodology respects the sustainability guidelines (such as the use of natural resources, animal welfare or social compatibility);
3. Research seeks to harmonize heterogeneous and conflicting objectives and to establish strategic networks between different fields and levels of action.

In this context, academic responsibility cannot be limited to a few formal research criteria, but must rather deal with the big challenges (Vogt and Weber, 2020).

Training for sustainability is equivalent to a continuous learning process, which supports responsible behavior within universities. A learning methodology will answer the key challenges for the modernization of the university curriculum if it aims at: designing viable alternatives in the future, partnership, practice and learning through social interactions (Lungu et al., 2013).

Students from higher education institutions are not a homogeneous group; the factors that affect one academic program may be completely different for another program, given the differences in experience with and particularities of each discipline, specialization, and teacher. Therefore, in order to provide adequate teaching support, it is necessary to understand the reasons why the faculty or university adopts or does not adopt new practices, such as those related to sustainability (Aivaz and Teodorescu, 2022).

In 2017, UNESCO published a guide for education professionals on using ESD to contribute to the achievement of the SDGs. In this material, indicative learning objectives as well as subjects and learning activities for each SDG are identified, along with implementation methods both for the initial stages such as designing courses and for structuring national level strategies.

However, ESD is not only about courses on sustainable development and curriculum change. Schools and universities should become both training and experimentation spaces for sustainable development. Therefore, all processes should be oriented towards the principles of sustainability. In fact, we want to integrate sustainability into the organizational culture of the educational institution. This involves the reformulation of programs and activities in the university campus, the change of mindsets at the level of students and management, commitments in relations with the research community. Thus, universities would become models for the whole community, not just for students. Green campuses allow the integration of sustainability principles into regular activities and thus support the development of skills in an integrative way (UNESCO, 2017).

UNESCO's work on ESD focuses on five main areas: advancing policy; transforming learning environments; building capacities of educators empowering and mobilizing youth and accelerating local level action.

5. Examples of good practice

Since the beginning of the approaches regarding the concept of Education for Sustainable Development (ESD) and then the formulation of the 17 SDGs - Sustainable Development Goals, there have been numerous materializations of achieving the proposed objectives.

Universities from all over the world, international organizations and top trainers have started and are currently implementing actions and activities to ensure the fulfillment of ESD objectives.

In this context, we considered it significantly useful to highlight some examples of good practices in ensuring the sustainability of the educational process and its promotion at the institutional level. In this respect we chose to give two examples, one of Romania and one of Austria experience.

-UVT – a green, inclusive and accessible university

UVT, the West University of Timisoara, Romania is a significant example in this respect because starting from 2016 having sustainability concerns grounded in the institutional strategy documents.

In 2020, the Western University of Timisoara managed to lay the foundations of the Sustainability Center - Green UVT within the Teach - SUS project, with the main objective of creating new ways of education in the field of sustainability. The UVT Green Center, from an academic point of view, aims to carry out activities such as: research, education, consultancy from the business environment, the involvement of public authorities. This approach seeks the assimilation of new concepts and good practices in terms of social responsibility and facilitates the connection with the business environment (Denkstatt, 2020).

Along with the creation of the UVT Center, he proposed: the organization of environmental responsibility awareness events for students and teaching staff; the implementation of measures for efficient use of resources; the development of study programs or subjects in the field of Education for Sustainable Development and the training of students, teaching staff and UVT staff in this spirit. Among the institutional objectives are the following: UVT's membership in the Green Universities Network(s); increasing UVT's notoriety as a university of choice, integrating green concepts into internal processes; increasing UVT's notoriety as an employer of choice, integrating concepts of green jobs. Thus, a series of specific actions have been started and implemented and the development of an institutional communication on the topic of sustainability is pursued, with the inclusion of values, mission and vision in relation to sustainable development and sustainability in the institutional strategy documents (UVT, 2020).

-An Austrian experience

In the context in which the Center for Climate Change Austria (CCCA) was created in 2011 and as a result of the activities carried out by seven universities at the beginning of 2012, the Alliance of Sustainable Universities in Austria was established in the conditions of the increasing importance of sustainable development approaches within universities.

A comparative analysis, published in 2020, illustrates the organizational change processes of thirteen Austrian universities towards sustainability in the areas of teaching, research, operations, organizational culture and societal engagement. The case study covers 13 of the 14 universities that were in 2018 members

of the Alliance of Sustainable Universities in Austria. As a result, changes in the institutional framework were observed in all member universities, such as the integration of sustainability in strategic documents.

The UniNEtZ project functioned as another consolidation mechanism, with among others the objective to address the SDGs at Austrian universities in research, teaching and university management. Initiated by the Alliance, it quickly gained support from the government, which proposed and other universities to join the project as the performance indicators are achieved. Participation in the project led to many universities joining the Alliance. As of February 2020, 16 universities have become members of the Alliance.

The alliance was thus considered an engine of change, generating similar concerns in the entire university system (Bahunovsky et al., 2020).

Conclusions

This paper presents the results of a documentary analysis regarding the role of higher education institutions in education for sustainable development and argues the need to raise the awareness of the academic environment for the commitment that must be assumed in order to fulfill the SDGs. Consequently, the potential role of universities should be found in: institutional strategies and practices, the training of university staff skills, the education of students, the creation of networks with the interested parties of society and the consolidation of a sustainable campus.

By improving instructional design and pedagogical methods and creating opportunities for more interaction during the class and offering intellectually engaging sessions teachers might be able to increase student motivation for an attitude towards sustainability (Aivaz and Teodorescu, 2022).

These aspects are actually solid arguments regarding the importance of including sustainability in university management as a factor for improving the quality of education.

Since higher education institutions have a great responsibility in training future leaders in the field of sustainability, they must develop educational programs based on these principles. And this attitude must be manifested in the campus, where the organizational culture towards sustainability is the key to training graduates, based on adequate communication and adapted to the proposed purpose with the major importance in social transformation, which still has to overcome many challenges and barriers within the institutions of higher education but also in their relationship with the environment and the institutions concerned.

Abbreviations and acronyms

ESD - Education for Sustainable Development

SDGs - Sustainable Development Goals

UN - United Nations

UNESCO - United Nations Educational, Scientific and Cultural Organization

UniNEtZ - Universities and Sustainable Development Goals (Austria)

UVT - West University Timisoara

References

- Aivaz, K.-A. and Teodorescu, D., 2022. The Impact of the Coronavirus Pandemic on Medical Education: A Case Study at a Public University in Romania. *Sustainability*, [online] 14(1), p.542. <https://doi.org/10.3390/su14010542>.
- Bohunovsky, L., Radinger-Peer, V. and Penker, M., 2020. Alliances of Change Pushing Organizational Transformation Towards Sustainability across 13 Universities. *Sustainability*, [online] 12(7), p.2853. <https://doi.org/10.3390/su12072853>.
- European Education Area, 2023. Quality education and training for all. *Learning for the green transition and sustainable development*, [online] Available at: < <https://education.ec.europa.eu/focus-topics/green-education/learning-for-the-greentransition> > [Accessed on 20 March 2023].
- Denkstatt, 2020. *Sustainability Center | Green UVT – sustainability education*, [online] Available at: <<https://denkstatt.eu/centrul-de-sustenabilitate-green-uvt-educatie-in-domeniul-sustenabilitatii/?lang=ro>> [Accessed on 19 March 2023]

- Kohl, K., Hopkins, C., Barth, M., Michelsen, G., Dlouhá, J., Razak, D.A., Abidin Bin Sanusi, Z. and Toman, I., 2022. A whole-institution approach towards sustainability: a crucial aspect of higher education's individual and collective engagement with the SDGs and beyond. *International Journal of Sustainability in Higher Education*, [online] 23(2), pp.218–236. <https://doi.org/10.1108/IJSHE-10-2020-0398>.
- Lungu, C.I., Caraiani, C., Dascalu, C., 2013. *Education for sustainability -premise of post-crisis economic competitiveness with possible inferences for Romania*. Theoretical and applied economics, Volume XX (2013), No. 5(582), pp. 49-68. [online] Available at: < https://store.ectap.ro/articole/860_ro.pdf > [Accessed on 20 March 2023]
- Popescu, F., Edu, T., Negricea, I.C., Zaharia, R. and Zaharia, R.M., 2020. How Do Students Assess the Sustainability of Their University? A Comparison between Dutch and Romanian Students from Business Schools. *Amfiteatru Economic*, [online] 22(54), pp. 411-431. <https://doi.org/10.24818/EA/2020/54/411>
- Purcell, W.M., 2021. *Quality education for all, leaving no-one behind*. [online] Available at: < <https://www.emeraldgrouppublishing.com/opinion-and-blog/quality-education-all-leaving-no-one-behind> > [Accessed on 20 March 2021].
- Tilbury, D., 2011. *Higher education for sustainability: A global overview of commitment and progress*, [online] Available at: < https://www.researchgate.net/publication/285755127_Higher_education_for_sustainability_A_global_overview_of_commitment_and_progress > [Accessed on 20 March 2023]
- UNESCO, 2017. *Education for Sustainable Development Goals: Learning Objectives*
- United Nations Educational, Scientific and Cultural Organization Available in Open Access. [online] Available at: < <https://unesdoc.unesco.org/ark:/48223/pf0000247444> > [Accessed on 21 march 2023]
- UVT. 2020. *Sustainability, Vision, Mission*. [online] Available at: < <https://www.uvt.ro/experienta-uvt/sustenabilitate/> > [Accessed on 20 March 2021]
- Vogt, M., Weber, C., 2020. The Role of Universities in a Sustainable Society. Why Value-Free Research is Neither Possible nor Desirable. *Sustainability*, 12(7), 2811. <https://doi.org/10.3390/su12072811>.
- Žalėnienė, I. and Pereira, P., 2021. Higher Education For Sustainability: A Global Perspective. *Geography and Sustainability*, [online] 2(2), pp.99–106. <https://doi.org/10.1016/j.geosus.2021.05.001>.