

Some Peculiarities of Education for Sustainability impact on Student Professional Responsibility Development

The effects of the fast economic growth, global industrialization, irresponsible management resources use, increased production and consumption, unregulated unlimited pollutions and many others factors became real threats for the human existence. To address new challenges, in 1987, the United Nations decided to establish the World Commission on Environment and Development or the so-called Brundtland Commission.

The Brundtland Commission defined sustainable development as a pattern of resource use that “meets the needs of the present without compromising the ability of future generations to meet their own needs.” [7]. In order to preserve the natural world, economic, social and environmental factors must be jointly considered and harmonized.

Consequently, higher education needs to answer to this societal appeal, and it is within this context that the concept higher education for sustainable development or sustainable higher education emerges. Thus, higher education for sustainable development can be defined as education that prepares students for an active role in society, with the purpose of fostering a transition process towards sustainable societies. In order to do this, higher education needs to provide students with competences that enable them to cope with and formulate answers to the complex challenges of the future. In addition, higher education must lead by example and integrate sustainability within its research, societal outreach activities and campus organization [5]. Within this context, the definition and integration of competences and responsibilities for sustainable development, is seen by W.Lambrechts as an important step in the process of realizing the paradigm of higher education for sustainable development [6].

Progressively, universities and other higher education institutions have been incorporating sustainable development values and practices into their core activities of teaching and research, institutional management and operational systems. However, the debate thus far has focused primarily on the rationale and reasoning for why sustainable development needs broad adoption.

Nowadays many scholars seek to provide frameworks and support for establishing sustainable educational systems. Among them are A.Cortese, S.Gough, W.Scott, B.Karatzoglou, S.Sterling, M.Barth, M.Rieckmann, W.Lambrechts.

The work reviews the concepts of education for sustainability through analyzing its impact upon the students, educational institutions, communities, regions etc. It is particularly focused on its potential to foster student professional responsibility.

The tasks of the paper are to define the concept of education for sustainability, analyze its benefits, outline its structure, main principles and integral parts and identify its potential to foster student professional responsibility.

The methods, used in the work, included a problem-solving, logical and systematic, as well as structural and functional analysis of resources.

Of importance is the definition of the main term of the work: thus, education for sustainability is “learning that links knowledge, inquiry, and action to help students build a healthy future for their communities and the planet” [1]. Education for sustainability requires participatory teaching and learning methods that motivate and empower learners to change their behaviors and take action for sustainable development. Education for sustainability consequently promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way to further develop student professional responsibility [2].

Having reviewed the relevant literature we can identify two unique opportunities for higher educational institutions to engage in sustainable development. Firstly, “Universities form a link between knowledge generation and transfer of knowledge to society for their entry into the labour market”. Such preparation includes teacher training, who play the most important role in providing education at all levels.

Secondly, they actively contribute to the societal development through outreach and service to society by delivering competent and responsible specialists. A.Cortese outlines this notion, stating “Higher education institutions bear a profound, moral responsibility to increase the awareness, knowledge, skills, and values needed to create a just and sustainable future. Higher education often plays a critical but often overlooked role in making this vision a reality. It prepares most of the professionals who develop, lead, manage, teach, work in, and influence society’s institutions.” [3]

Subsequently, higher education for sustainable development must progressively adopt policies toward incorporating sustainable development values. The issue lies not in the ideas, but in the implementation.

These are core sustainable education values to be introduced into the process of education at any level of the higher educational institution. We can list the most important of them such as: being adaptable, providing sustainable solutions, influencing change, understanding sustainable development concept and apply it internationally, engaging in lifelong learning, valuing respect, being recruited knowing the sustainability culture of the higher educational institution.

Incorporating these values is expected to result in developing professional responsibility through the whole educational institution. As A.Hargreaves claims developing sustainable development action plans would engage senior management and give leaders a chance to emerge as advocates within the institution. [2]

Considering the above-mentioned, we have outlined several actions that might prompt a higher educational institution to be proactive in sustainable development. These actions and their advantages include:

Engaging in peer review will help build strong mutually beneficial collaborations.

Establishing guidelines and targets, and then periodically reviewing them will ensure policies are implemented and progress being made. Publishing reviews outcomes will also increase transparency and accountability, as well as promote broader adoption of good practices.

Establishing professional recognition for staff engaged in sustainable development research, teaching or managing and valuing inter-disciplinary research will help to break down the academic isolation.

Building the capacity of university leadership from the principal to heads of departments and then staff and students will ensure that strategic initiatives are implemented and that demand for sustainability from students is positive. Thus, higher educational institution bodies should commit their institutions to a set of tangible objectives, and these objectives should be clearly announced to students, staff and faculty in order to develop multi-level commitment to the ideas and foster personal responsibility for every single objective.

According to many scholars who studied the concept of education for sustainable development, its implementation requires a methodological re-orientation of teaching and learning, as traditional teaching, based on passive knowledge acquisition, is insufficient [4]. In order to successfully integrate competences for sustainable education, the learning process has to become *interdisciplinary, trans-disciplinary, problem based and self-regulated*. Ensuring such a dynamic learning process enables students to acquire competences for sustainable education, hence become responsible change agents in society [4].

To foster the transition towards education for sustainable development, several competence frameworks and implementation models have been developed. These models are oriented on both theoretical and practical aspects of learning. A. Wiek defines five key competences for sustainable education aimed at developing student professional responsibility: systems-thinking competence, anticipatory competence, normative competence, strategic competence, interpersonal competence [3].

Having analyzed these competences and methods of acquiring them we suggest several techniques for doing this such as: *interactive and participative technique* (involves Socrates method, group discussion, role play, learning diary, brainstorm, peer assessment); *action oriented technique* (learning by doing, internships, field work, solving real community problems); *research-based technique* (bibliographic research, problem analysis, case studies, concept mapping, value clarification).

Upon analyzing these techniques and methods we designed case studies for the students of our university. Having implemented them into the learning process we found out that the attendance of students and their motivation to participate in different tasks increased resulting in a rise of their progress marks by 7 %.

Thus, higher education for sustainable development has a critical and tangible role in developing the principles, qualities and awareness not only needed to perpetuate the sustainable development but also to bring up responsible and knowledgeable professionals aimed at serving the society. In the frame of our research we do believe that there is a need to institutionally integrate sustainable development into all the different functions of a higher educational institution to make an institutional commitment through a sustainability agenda. Although some institutions worldwide are incorporating sustainability into some of their activities, there remain some challenges to comprehensive adoption and to move from the incremental to the transformational. It would be logical to continue this research in this direction by further elaboration of practice-oriented means and techniques for sustainable values recognition.

References

- 1) Arbuthnott, K. D. (2009). Education for sustainable development beyond attitude change. *International Journal of Sustainability in Higher Education*, 10(2).
- 2) Hargreaves, A. & Fink, D., (2006). *Sustainable leadership*. San Francisco: Wiley & Sons.
- 3) Cortese, A.D. (2003), "The Critical Role of Higher Education on Creating a Sustainable Future", *Planning for Higher Education*, March-May.
- 4) HIGHER EDUCATION FOR SUSTAINABLE DEVELOPMENT. Final Report of International Action Research Project. 2006-2007 <https://sustainablehighereducation.com/publications/>
- 5) Lambrechts, W., Van Petegem, P. (2016). The interrelations between competences for sustainable development and research competences. *International Journal of Sustainability in Higher Education*, Vol. 17, No. 6.
- 6) Lambrechts, W. (2015). The contribution of sustainability assessment to policy development in higher education. *Assessment and Evaluation in Higher Education*, 40 (6).
- 7) UNESCO (2005), UN Decade of Education for Sustainable Development: 2005-2014, <https://unesco.org/education/desd>.

Authors

Tetyana Borova, Doctor of Science (Pedagogy), professor, chair of the department of Pedagogy and Foreign Philology, S. Kuznetz Kharkiv National University of Economics (*borovat71@gmail.com*).

Tetyana Pohorielova, lecturer of the department of Pedagogy and Foreign Philology, S. Kuznetz Kharkiv National University of Economics. (*tatipogorelova@gmail.com*).