

Summary: *University and Sustainable Development: Analysis of Suppositions of Successful Implementation in the Core Academic Activities*

If we accept the concept of sustainable development as the objective of development and sustainability as a developmental criteria, education for sustainable development is thus a mechanism in achieving sustainable development, that is, a societal tool which can help create sustainable future.

In order to achieve sustainable development, theory analysis indicated changes will be necessary as well as reconceptualization of education. However, that raises many questions answers to which are not simple and cannot be unambiguous and which request holistic approach. Some of those questions are following: How to reach a consensus about sustainable development as a fundamental objective? How to trigger the process changes? What are the mechanisms that can trigger changes? Who is responsible for the implementation of education for sustainable development/sustainability? How to design the curriculum? What are the contents of sustainability? How to teach sustainability? How to research sustainability and teach it in accordance with research findings?

One possible answer is *the model of integrating sustainability in education* (Sterling, 2004 b.), because it implies a holistic reasoning and an approach to education, where sustainability is not just an addition the existing structures and curriculums, but implies the change of fundamental epistemology in our culture as well as in our education practices and what we think of it. Other authors also point to the fact we need new (academic) professional culture and the new ways of understanding reality, in order to achieve sustainable development.

The role of higher education institutions in research and promotion of sustainable development, that is, the role of education in sustainable development, is evidently a key one, because it relates to the education of those people who will be making new developmental decisions soon, but also to education of those people who will soon be teaching younger generations. Universities have always been generators and disseminators of knowledge and it is necessary to remind them today of the responsibility they have. Analysis showed sustainability, that is, the implementation of sustainable development at universities, is important for all activities: teaching, research, participation in the community and institution management. That is why university should face with the fundamental questions in relation to sustainable development/sustainability:

1. Why should we get involved?

2. What can we do?
3. How to organize it? (van Weenen, 2000).

The subject matter of the research *University and Sustainable Development: Analysis of Suppositions of Successful Implementation in the Academic Activities* are the attitudes of university teachers and students at the University of Rijeka regarding the education for sustainable development as well as determining the conditions for the instigation and implementation of education for sustainable development in academic activities.

The objective of this research was to determine how the concept of sustainable development is understood, are university teachers ready and to determine obstacles and models of implementation of sustainable development in fundamental academic activities. In addition to that, as one of the objectives of this research, understanding of the concept as well as student's readiness to learn about sustainability was also analysed.

Research results about university teachers' attitudes show 85% of examinees accept the most common definition of sustainable development, the one offered by the Brundtland Commission in 1987. However, other indicators point to insufficiently comprehensive, limited understanding of sustainability issues on part of some of university teachers, so it can be concluded teachers are divided in their attitudes regarding the concept of sustainable development. As far as students' attitudes are concerned, descriptive indicators point to the fact students have respectable knowledge on the matter, most of them understands sustainability issues well, that is, they accept the sustainability concept and recognize that the implementation of sustainable development idea is possible only in the context of profound changes in values and political concepts (59%). However, in general it can be concluded students do not in fact have a specific opinion on how to achieve sustainable development, that is, they are more prone to look for answers to future development in the existing model, instead of realizing a completely different model of economic development will be necessary. In addition, female and senior students have a more positive approach to sustainability issues, that is, they accept it and define it correctly, unlike male students and freshmen.

As the implementation of the education on sustainable development in the university education program has the characteristics of an innovation, the research aimed at discovering teachers' and students' opinions on who is responsible for its promotion and implementation.

Considering the instigation and responsibility for the implementation of new contents in the education system, it was expected examinees will give priority to the educational institutions. However, at the University of Rijeka that is not the case, because university teachers and students there have a different opinion. Teachers primarily stress out the role of government's departments and media, the role of schools follows at third place (47%), while the role of higher education institution is at seventh place. In the opinion of students, the role of education institutions is at fourth place (schools), that is, at fifth place (higher education), while, just as their teachers, place the role of government's departments at the top. The answer to the question why did examinees evaluate the role of education institutions in promoting and implementing education for sustainable development as inferior to the role of others, can be find in the understanding of education institution's dependant position and its strong centralistic decision making system. In addition to that, personal responsibility is evaluated as having a minor role s well, which is (relatively) discouraging, given the fact teachers are the leaders of the knowledge elite and are responsible for the generation and dissemination of (new) knowledge and skills. Students too neglect their responsibility or fail to perceive it at all, while the concept of sustainable development requires rethinking the consequences of our personal impact on the environment and the society. Is it possible young people today think their acts and their decisions will have no impact on the development of their local community and of the society. It must not be forgotten these young people will be teaching new generations one day and that they will be the ones making developmental decisions. Unless they are educated in the direction of sustainability, will sustainable development have any chance? On the other hand, contrary to expectations, 42.2% of teachers say they evaluate and teach, that is, that their courses include sustainable development. In relation to the percentage of such subject matters in teaching, fewer percentage of teachers deal with sustainability in their research, 34.6% of them, although the percentage is larger than expected. Differences in average answers suggest a relatively homogenous structure of university teachers' answers, although teaching and research regarding the education for sustainable development is increasing and is becoming more present in the structure of innovators and of early adopters. From their frank answers to the question about subject matters they teach and research, in can be concluded prevalence is given to the variety of subjects, themes and approaches. It supports the fact it an extremely intricate and complex issue which relates to every segment of human operations. Research findings point to the conclusion university

teachers not only recognized the issue, but also to the conclusion Croatian science community has a huge potential for further development of this area in the future.

The motive for this research into students' attitudes was the research on university teachers' attitudes the result of which showed teachers would be motivated to implement the contents of education for sustainable development if students were interested in the issue. Their responses point to the fact every other student at the University of Rijeka is interested in graduating in the field of sustainability. Forty-seven percent of students at the University of Rijeka showed an interest in pre-graduate education in sustainability, while 36% of them showed an interest in the same post-graduate education. These results are very encouraging and can (need) to serve as an indicator to the management elite in the process of planning future college programs.

University teachers have a very important role in instigating and implementing education for sustainable development in the fundamental academic activities. Whether some innovation will live or remain on margins, depends on their interest, their readiness and motivation. That is why one of the fundamental objectives of this research was to determine obstacles to the implementation of sustainability and the models is sustainability issues integration in teaching and research. Answers analysis clearly showed there is a general support to the implementation of this issue in the higher education programs, given 74% of examinees believes young people are not getting enough knowledge on sustainable development and that those issues should be included in higher education programs. It is interesting students, more often than teachers, evaluate all university teachers should include knowledge, values and skills for sustainable living in the community (74%) in the execution of the program. This result suggests students are looking for integrated and comprehensive education model for sustainable future.

Integration of sustainability issues into fundamental academic activities is possible under the condition certain preconditions are met at the institutional level. Even more important is the question whether teachers are willing to refine their field of expertise with principles, questions and issues of sustainable development (Kuckartz, 1997:18; Thomas i de la Harpe, 2009). One of the fundamental goals of this research was to investigate into what would encourage teachers to implement aspects of sustainable development into their teaching and research work. They gave prevalence to students' motivation and interest in such matters and activities (78.2%), which was followed by the secured administrative support and infrastructure (73.8%).

Final part of this work offers guidelines universities in Croatia could implement at institutional level: that is the factors that instigate (could instigate) the implementation of education for sustainable development.

Implementation of sustainable development into everyday living is going to be possible the moment awareness (*higher* awareness) increases as well as sense of responsibility, that is, when people acquire new knowledge and skills on the practical ways to implement sustainability concepts and that is exactly why education system has a huge role in accomplishing that objective. Education for sustainable development is a big challenge both for universities and for the academic profession.