

Social responsibility in engineering curricula

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INTRODUCTION

Corporate Social Responsibility (CSR) is a concept related to the need for companies to be not only competitive but also sustainable and refers to and the relationship of the company with its social and environmental surroundings, including labour issues [1]. CSR is also gaining attention within Higher Education, being related to a wide range of activities taking place at universities, especially the environmental dimension [2]. Apart from the issue of Social Responsibility within the institution, its role in the curricula of the different degree programmes also needs to be discussed. The University of Coruña (Spain), the University of

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Minho (Portugal), the University of Guanajuato (Mexico) and the Autonomous University of Aguascalientes (Mexico) started, in 2012, a research project focused on students', teachers' and university managers' representations regarding the concept and practices of Social Responsibility in Higher Education. At student and teacher level, the focus is on the role of Corporate Social Responsibility in the curriculum and seeks to answer questions on *if* and *how* students are prepared to assume an active role in social, economical and environmental responsibility in their future professional career. At management level, the focus is on the incorporation of social responsibility in the university mission, the role of decision makers in Social Responsibility practice on campus and in course content, and on the relationship between research and Social Responsibility. As a first step in this exploratory project, focus groups were held with students from all four participating universities.

1 SOCIAL RESPONSIBILITY

Social Responsibility has its origin in the activity of the companies and is a relevant issue in different types of organisation. For institutions of Higher Education, awareness of social, economical and ecological aspects of their contacts with students, parents, suppliers, companies and society in general is important. They have to be aware of their stakeholders and the impact that their activities may have on their stakeholders and on society in general.

Although the number of studies on Academic Social Responsibility is increasing, it is rather limited compared to the number of studies on Corporate Social Responsibility. Hill [3] argues that teachers in Higher Education pay more attention to what they teach than to analysis of behaviour and ethics and values of management, when dealing with Social Responsibility issues. As in the corporate context, academic social responsibility also appears difficult to define and multiple definitions and interpretations exist. The first difficulty in the definition of Social Responsibility in a Higher education context is the lack of consensus, as explained by Dahlsrud [4], a lack of consensus also seen in the documentation of the European Union, that came with a definition in the Green Paper of 2001² – “a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment”- that was transformed into a new definition about ten years later –“the responsibility of enterprises for their impacts on society”³ in the renewed EU strategy 2011-14 for Corporate Social Responsibility.

Matten and Moon [5] identify three difficulties of defining Corporate Social Responsibility: it is an easily contested concept, which is internally complex and has open rules of application, it is an umbrella term overlapping with other term, and it is a dynamic phenomenon. The diversity of concepts and the difficulties in defining them can also be found in work of i.e. Secchi [6] and Garriga and Melé [7].

2 METHOD

As mentioned before, the current study is part of a broader international research project, involving three countries - Portugal, Spain and Mexico - and four different universities (1 Portuguese, 1 Spanish and 2 from Mexico). The research project focuses on the representations of three main actors in the university setting regarding the concept and practices of academic social responsibility: (i) the students, (ii) the deans of education/teachers; and (iii) the university administrators. In an attempt to have a broader picture of these representations, student and teachers of four different training areas were involved: (i) Arts; (ii) Education; (iii) Engineering and Technology; and (iv) Economy and Management. In this paper the emphasis is on the perspectives of Engineering and Technology students.

² <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0366:FIN:EN:PDF>

³ http://ec.europa.eu/enterprise/policies/sustainable-business/files/csr/new-csr/act_en.pdf

2.1 Participants

The study included a total of 29 Engineering and Technology students from the four universities/three countries involved in this research consortium: 10 students from the University of Coruña (Spain), 4 students from the University of Guanajuato (Mexico), 7 students of the Autonomous University of Aguascalientes (Mexico) and 8 students from the University of Minho (Portugal). All these students were attending the first or second year of Master's degree programme or the penultimate year of a five year integrated Master's Degree programme.

2.2 Instruments

In order to identify the Engineering and Technology students' representations about Academic Social Responsibility, a focus-group was conducted, one at each participant university (n=4). Every focus-group involved 4 to 10 students and was run by a team: a moderator and an assistant moderator. Each of the focus groups was audio recorded and further notes regarding the student's interventions were taken. The script was applied in the students' native language and contained 15 questions.

2.3 Procedures

At a first stage, deans of education were addressed, in order to contextualize and clarify the objectives of the research project, to obtain authorisation for data collection and to ask for the students' contact. In the second stage students were contacted: (i) during classes or (ii) electronically (via email or FaceBook).

Before starting the data collection, students were informed about the theme and objectives of the study, as well as its confidential and voluntary nature. Anonymity was also warranted. During the session, the moderator was responsible for facilitating the discussion, encouraging all the participants to speak, and for taking notes that could inform potential emergent questions to ask. The assistant moderator was responsible for taking notes, recording the session and providing verification of data [Kruger and Casey (2000), cited by 9].

3 RESULTS

The four focus groups took place at two Mexican, one Spanish and one Portuguese university. One of the Mexican and the Portuguese focus group involved Industrial Engineering students, whereas the other Mexican and the Spanish focus groups were held with Civil Engineering students. The sessions lasted between 25 minutes and 63 minutes. In each focus group between 4 and 10 students participated. The focus groups were recorded and transcribed at each university. The results are presented according to the questions that were discussed in the focus groups.

At the start of the session, students were asked whether they were familiar with the concept of Social Responsibility. At three out of four universities, they were not familiar with the concept. Only one student at the Portuguese University and one at a Mexican University knew the concept, because of involvement in politics and because of involvement in charity. At the other Mexican University, all students are familiar with Social Responsibility and explain that it means being responsible for your acts and putting yourself in the role of other people. Social Responsibility, according to these students, is about being fair and impartial. Defining the concept leads to rather general descriptions like doing well for society, acting in such a way, that others can benefit and being aware of the people that surround you. No specific contexts or dimensions were distinguished. After a short explanation of what is regarded as Social Responsibility in this study - the voluntary integration, by companies, of economic,

social and ecological concerns in their commercial operations and their contacts with stakeholder – all students were able to think of examples: a workshop on eco-sustainability (UM), Greenpeace (Guanajuato) and the Mexican Chamber for the Building Industry that helps children with burn injuries, the Red Cross, that helps in case of natural disasters (Aguascalientes), and companies in the food industry that donate food to charity (Coruña). A few students were involved themselves in initiatives of Social Responsibility. One of the Portuguese students was politically active, two students from Aguascalientes were active in charity and one of the Coruña students is involved in recycling in the company where he works. Most of them express a positive opinion with regard to initiatives for Social Responsibility in society and come up with initiatives they would like to participate in.

The students from the four focus groups have different opinions on the motives of companies to be involved in Social Responsibility. Some students are convinced that “(...) companies want to do something good for society,” like a student from Coruña says. They want to help society. The students from Aguascalientes argue that they mainly do it to gain recognition and for tax reduction motives. The Portuguese students claim that companies are only worried about Social Responsibility when they have something to gain, like a better image. They will not do anything for altruistic motives. Or, as one of the students said: “Nobody does anything for anyone.” They have serious doubts about supposed altruistic motives and claim that also foundations with a charity goal have financial motives.

When asked about the activities at their own university, there are large differences between the institutions. At Guanajuato, students describe a wide range of activities, going from waste separation to free land surveys for charity institutions and reforestation. At the other universities, students describe what the university could do, starting with waste separation programmes and allowing initiatives for political awareness on campus, without direct propaganda for political parties.

In the degree programmes of the students, in their perception little is happening that is directly related to Social Responsibility. There are no specific courses dedicated to Social Responsibility and only in one of the focus groups, in Portugal, the students refer to contents that are related to the concept; in this case, a course in which aspects of waste collection in public spaces were discussed. No other curricular or extra-curricular activities were mentioned by the students, although they have many ideas about initiatives that could be taken either by the students or by the teaching staff. One of the Mexican groups raises the issue of reforestation, the other Mexican group mentioned that transport for people with little resources is vital for access to Higher Education and a project aimed at transport to and from university would be very useful. On the precise role of Social Responsibility in their respective curricula, students agree that the attention should be increased, but do not mention any specific strategies of how to increase attention for Social Responsibility.

They are convinced that Social Responsibility is important in their future professional context and that they should be prepared better. They mention professional ethics (Guanajuato), being aware of people in need and helping them (Aguascalientes), organizing workshops for employees on financial management (Minho), being aware of working conditions for women, especially those who may think of having children (Minho), and creating jobs as important initiatives.

4 DISCUSSION AND CONCLUSIONS

This study was presented as the first step in an exploratory study on Social Responsibility in Higher Education, trying to identify perceptions and opinions of students. The authors were interested in finding out whether the students were familiar with the concept and whether or not it was part of their lives, either in their degree programmes, at their universities and in their (future) professional and personal lives.

Although they do not have a single definition of Social Responsibility, most students are familiar with the concept and know one or more examples, especially after a short introduction of the focus group moderators. They consider it important, both inside as well as outside university, but have second thoughts on the motives for companies to be engaged in initiatives that show Social Responsibility. They suspect that those motives are not in accordance with the real meaning of Social Responsibility and suspect companies to work first and foremost on their own benefits. The students make clear links between the programmes in which they are enrolled and Social Responsibility. They connect social, economic and environmental dimensions of social responsibility to their courses and to their future work as engineers.

In the engineering degrees included in this exploratory study, Social Responsibility is hardly present in the engineering degree programmes at which the focus groups were held, neither in the degree programme, nor in extra-curricular activities. Students, on the other hand, have many ideas on initiatives that they could start or in which they could participate, some directly related to their future engineering practice, others more general.

Looking at the contexts of the study, Spain, Portugal and Mexico, a difference in focus can be distinguished. The Iberian students appear to be more worried about ecological and economical issues at a personal level, whereas the Mexican students are more focused on the social dimension of Social Responsibility and take into account a wider context when for example referring to Social Responsibility and nature disasters.

As a first step, the study has proven to be useful to the researchers involved. The meaning of Social Responsibility to students, its role in their daily lives and their professional future and the role of university are varying widely in the different contexts involved in the study. The multiple perspectives, due to the diversity of backgrounds of the researchers (Economics and Management, Psychology, Sociology and Education) contributed to a comprehensive instrument for data collection, although the researchers are much aware of the exploratory nature of the study and will need to conduct more specific content analyses of the different focus groups conducted in this study as well as in the other areas apart from engineering.

In the following data collection processes, deans of education and the university management are interviewed in each one of the four areas. A comparison of the focus groups of the four areas will also be made, both intra- as well as inter-university. The research team aims to find ways of supporting institutions of Higher Education that try to address Social Responsibility in a comprehensive way, not only through the relationship with their stakeholders, but also looking at the role of Social Responsibility in research and teaching.

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