LIFELONG LEARNING ON SUSTAINABILITY FOR PERSONAL, PROFESSIONAL AND SOCIAL TRANSFORMATION: ANALYZING A SEVEN YEAR EXPERIENCE FROM THE UNIVERSITY OF THE BASQUE COUNTRY

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Abstract

The UNESCO Chair on Sustainable Development and Environmental Education of the University of the Basque Country (Spain) has offered for seven editions a Postgraduate course on Environment and Sustainability. This postgraduate degree (30 ETCS credits) is mainly composed of lectures, workshops and field trips, and includes a final presentation and discussion of an applied project. It also includes the option of realizing an internship programme in different companies, institutions and NGOs. Students and professionals from different areas of knowledge take part in the course and learn on sustainability together with an interdisciplinary and transdisciplinary panel of teachers. In order to analyze students’ satisfaction on the course, determine the rate of employment of post-students in jobs related to sustainability and analyze if the course has provoked them a lifelong learning towards sustainability, we conducted a survey on post-students. 48% of the students of the seven editions answered the survey. Results show that students’ satisfaction on the course is high. What students liked most of the course is its interdisciplinary and transdisciplinary character, the great variety and quality of teachers from different professional backgrounds and with expertise in diverse sustainability subjects, the opportunity to make professional contacts, the active participation of the group, the internship programmes and the final applied project. 90% of student made an internship programme in different companies, institutions or NGOs. 92% of them said that they learned a lot in those work practices. With regard to employability, 50% consider that this postgraduate has served them to find a job related to sustainability. Moreover, 15% of the students that made an internship programme were employed in those same companies, and 75% of them are still working there (some of them have worked for over 5 years in the same company where they made the work practices within the postgraduate course). Post-students declare (88%) that this course has provoked them a reflection on attitudes and values towards sustainability. They have made a change of habits for a more sustainable lifestyle thanks to what they learned, reflected and practiced during the course. Now they recycle more, they make a more responsible consumption and they apply sustainability criteria at their workplaces. In conclusion, our study results show that this postgraduate course provides a lifelong learning towards sustainability with real employability opportunities. Its transdisciplinary character, its practical approach that seeks to find solutions to real problems and the active cooperation between the University and the private and public sectors, contributes to create social network towards a more sustainable present and future. Now that this postgraduate course has became a Master Degree (60 ETCS credits), we will use the lessons learned over this seven years, together with the recommendations extracted from this study, to maintain and improve the achieved quality standards.

Keywords: Sustainability, internship programmes, employability, social and personal transformation, transdisciplinary education.

1 INTRODUCTION

Conscious of the relevance of education for a transition towards sustainability and considering the responsibility of high educational institutions to foster the development of sustainability competencies [1], the UNESCO Chair on Sustainable Development and Environmental Education of the University of the Basque Country (Spain) launched, on the year 2009 a Postgraduate course on Environment and Sustainability. The aims of this Postgraduate course, which has been offered for seven editions, are: 1) Provide a holistic knowledge on sustainability, 2) Provoke a reflection on attitudes and values (personal and social) towards sustainability, 3) Drive forward the application of knowledge to analyse real complex problems, in order to contribute to global sustainability.

This postgraduate degree (30 ETCS credits) is mainly composed of lectures, workshops and field trips, and includes a final presentation and discussion of an applied project. It also includes the option
of realizing an internship programme in different companies, institutions and NGOs. Contents cover social, environmental, economic and cultural dimensions of sustainability, with a local to global focus and through the use of many active participatory learning methodologies, both outside and inside the classroom (Fig 1).

![Figure 1. Photographs of students actively participating in different moments of the course, either outside (photograph in the left) or inside the classroom (photograph in the right).](image1)

Students and professionals from different areas of knowledge (Fig. 2) take part in the course and learn on sustainability together with an interdisciplinary and transdisciplinary panel of teachers [2]. The teaching panel consists of University Professors, public institutions (local, regional and global, including members of the United Nations system), private companies, and NGOs that work in different areas involving a wide range of sustainability matters. Moreover, over 30 institutions, companies and NGOs participate in the internship programmes, offering a great variety of opportunities to students. With these voluntary internship programmes, our students put into practice the acquired knowledge on sustainability and enhance it through its real application.

As mentioned above, students’ background is very diverse. The students and professionals that course this postgraduate come from different areas of knowledge, including natural sciences (such as biology, environmental sciences or geology), social and juridical sciences (such as political sciences, education, administration or law), and engineering, including telecommunications, mining, agriculture, industry and design engineering (Fig. 2).

![Figure 2. Students background considering different areas of knowledge.](image2)

After seven years experience, considering the obtained positive results and with the new 2030 sustainability agenda in mind [3,4], the academic committee proposed to convert this postgraduate course into a Master degree of 60 ETCS. Therefore, within this context, the aim of this study is to analyze the lessons learned and the obtained personal, professional and collective achievements to maintain and improve the necessary quality standards for a meaningful education. To do so, we
conducted a survey on post-students with the following specific objectives: 1) analyze students’ satisfaction on the course, 2) determine the rate of employment of post-students in jobs related to sustainability, and 3) analyze if the course has provoked them a lifelong learning towards sustainability.

2 METHODOLOGY

For this study, we designed a questionnaire with open and closed questions to collect the perceptions and experiences of post-students on their personal and professional learning process linked to this course on sustainability. This survey would help determine post-students satisfaction on the course, their perceptions on employability opportunities and their lifestyle changes towards sustainability. The objective was to obtain direct and useful data to put in value and improve this high education learning offer as a social transformation instrument.

The survey was sent by electronic email to every post-student of the seven editions of the Postgraduate course on Environment and Sustainability, of which 68.25% were women. The survey was administered between November 2016 and the end of January 2017 on five different moments, to maximise the respondents rate. Finally 47.62% of the students of the seven editions answered the survey.

The survey consisted of 25 questions and was divided into three sections. The first section included questions about respondents’ previous studies and on other general information, as well as on their satisfaction on the course. For instance, in this first section, students were asked if they had taken part in the internship programmes of the postgraduate. They were also asked (through an open question) on the aspects of the course that they liked most. The second section included questions addressing their professional background and their perception on the usefulness of this postgraduate to find a job related to sustainability. Finally, the third section was designed, based on the work of Kaiser and Wilson [5], to help establish if the course has provoked them a lifelong learning towards sustainability.

3 RESULTS

Results show that students’ satisfaction on the course is high (Table 1). What students liked most of the course is its interdisciplinary and transdisciplinary character, the great variety and quality of teachers from different professional backgrounds and with expertise in diverse sustainability subjects, the opportunity to make professional contacts, the active participation of the group, the internship programmes and the final applied project (Table 1). 90% of student made an internship programme in different companies, institutions or NGOs. 92% of them said that they learned a lot in those work practices (Table 1). With regard to employability, 50% consider that this postgraduate has served them to find a job related to sustainability (Table 2). Moreover, 15% of the students that made an internship programme were employed in those same companies, and 75% of them are still working there (some of them have worked for over 5 years in the same company where they made the work practices within the postgraduate course). It is also notable that 55% of the post-students that are currently working are working on sustainability issues (Table 2). Some students that have recently finished the course stated that even the course has not served them yet to find a job, they hope it will serve them in the near future.

<table>
<thead>
<tr>
<th>Table 1. Questionnaire answers regarding students’ satisfaction. Note that the third question was specifically directed to students that made a voluntary internship programme.</th>
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<tbody>
<tr>
<td><strong>Question</strong></td>
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<tr>
<td>Do you thing you learned a lot in this postgraduate course?</td>
</tr>
<tr>
<td>Did you made an internship programme?</td>
</tr>
<tr>
<td>Do you thing you learned a lot in your internship programme?*</td>
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<tr>
<td>What did you liked most from the course?</td>
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Table 2. Questionnaire answers regarding Employability.

<table>
<thead>
<tr>
<th>Are you working at the moment?</th>
<th>Yes 73%</th>
<th>Further information or description 55% of them are working in sustainability issues</th>
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<tbody>
<tr>
<td>Have you worked in environmental and sustainability issues since you finished this course?</td>
<td>57%</td>
<td>Examples of types of jobs described: Environmental education, ESD, local agenda 21, environmental impact, participatory processes, media campaigns, environmental certification, waste management, landscape management, sustainable building, ecomaterials, research on water purification, design of geovisits, ecological footprint, energy</td>
</tr>
<tr>
<td>Did this course served you to find a job?*</td>
<td>48,3%</td>
<td>I found directly a job from the internship programme (15%), and I am still working there (75%)</td>
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Post-students declare (88%) that this course has provoke them a reflection on attitudes and values towards sustainability (Table 3). They have made a change of habits for a more sustainable lifestyle thanks to what they learned, reflected and practiced during the course. Now they recycle more, they make a more responsible consumption and they apply sustainability criteria at their workplaces (Fig. 3).

Table 3. Student answers to the question that analyses if the course has provoke them a lifelong learning towards sustainability.

| Has this course provoked you a reflection on attitudes and values towards sustainability? | Yes 88% | In which way? I have gain knowledge in all sustainability dimensions, I have identified many key aspects that I can improve in my life, I am now more self-conscious | No 12% | Further explanations I already got that motivation (20%); no further explanation (80%) |

Figure 3. Specific improvements of habits for a more sustainable lifestyle made by students thanks to what they learned, reflected and practiced during the course. Note that in many cases they declare that they already had those habits before making the course.
4 CONCLUSIONS

Education is crucial for the achievement of sustainability and the Sustainable Development Goals because it shall be the key to help individuals become sustainability change-makers [1]. Education for Sustainable Development (ESD) needs to be holistic and transformational education addressing learning content and outcomes, and has to be understood as an integral part of quality education, inherent in the concept of lifelong learning [1]. Our study results show that this postgraduate course provides a lifelong learning towards sustainability with real employability opportunities. Its interdisciplinary and transdisciplinary character, its practical approach that seeks to find solutions to real problems and the active cooperation between the University and the private and public sectors, contributes to create social network towards a more sustainable present and future. Such pedagogical approaches are recognized to be the way to make possible the development of the key competencies needed for promoting sustainable development [1]. To create a more sustainable world and to engage with sustainability-related issues as described in the SDGs [3], our students have shown important personal and professional transformations and achievements that could have lead them to become active sustainability change-makers. The strengths of this postgraduate course therefore are: a) thanks to its inter- and transdisciplinarity and to the participatory learning methodologies that help link formal and informal learning, students, teachers and professionals learn together on sustainability; b) It is action-oriented and has a practical approach, so there is an application of knowledge to the real world; c) It provokes a reflection on attitudes and values towards sustainability, offering a lifelong learning that leads to a change of habits for a more sustainable lifestyle, d) It helps creating a social network for sustainability, which is related with the collective sustainability achievements.

Regarding potential weaknesses, we observe that some students would appreciate the opportunity to get more in deep in some subjects. In order to facilitate so, we propose to create an interactive social media platform where students, post-students and teachers deal with sustainability matters by sharing information and conducting fruitful discussions. This platform will serve students to ask questions and obtain further information, materials and guidance on the subjects of their interest. If properly planned and implemented, these social media technologies appear to have potential to support effective learning, teaching and assessment [6]. Our social media will be designed to support self-directed learning, while enhancing participation and collaboration. Moreover, the use of this social media could reinforce the creation of social network for sustainability, and bring job opportunities to post-students.

Now that this postgraduate course has became a Master Degree (60 ETCS credits), we will use the lessons learned over this seven years, together with the recommendations extracted from this study, to maintain and improve the achieved quality standards.

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