Eco-labelling of courses/programs and training course for university teachers

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Abstract

For several years, the University of Gothenburg eco-label their courses and programs, as defined in the Swedish Higher Education Act (Chapter 1, Section 5), "In their activities, higher education institution shall promote sustainable development that ensures present and future generations a healthy and good environment, economic and social welfare and justice". The result shows that the proportion of courses and programs that are eco-labelled is increasing every year and now about 30% of courses and programs are eco-labelled. Two different eco-labels are used for the courses and programs. Courses and programs that primarily include issues related to ecological, economic or social sustainable development have one label while courses and programs that partly include issues related to ecological, economic or social sustainability have another label.

Studies show that the eco-labelling is still new and strange for some subject areas and university teachers. Many find it hard to accept that a definition of sustainable development can be applied within their subject area. The University of Gothenburg has started a training course for university teachers, to show good examples, find good literature, and through a dialogue get help on how sustainable development can be integrated into various subject areas.

1. Introduction

University of Gothenburg has an active Environmental Management System, EMS, certified by ISO 14001 and registered by European Eco-management scheme, EMAS. The EMS includes objectives in different part of the activities. The objective for the Education is “The University shall integrate sustainable development in the education”. In the beginning this
The 14th European Roundtable on Sustainable Production and Consumption (ERSCP)
The 6th Environmental Management for Sustainable Universities (EMSU)

objective was reported as a number of good examples of how departments integrated sustainable development. Later on the university had a small group of person's evaluating all courses, out of the text in the course catalogue, in these courses that contain sustainable development and these that don't. At the same time there was a discussion regarding the possibility to let the course leaders do this evaluation themselves. In 2005 the University course reporting system, GUBAS, introduced at question on eco-labelling when the departments reported the course to be given in the coming years. All presentations of courses and programs in catalogues and on the web are based on information in GUBAS. The eco-labelling was made in two levels; Courses that mainly deals with questions on sustainable development were labelled with one symbol while courses that partly deal with questions on sustainable development got a slightly different label. The courses that lack framing of questions on sustainable development are not eco-labelled at all. The definition of sustainable development in the Swedish Higher Education Act (Chapter 1, Section 5), "In their activities, higher education institution shall promote sustainable development that ensures present and future generations a healthy and good environment, economic and social welfare and justice" was used as a basis for the labelling. In 2006 the eco-labelling was also introduced for the educational programs offered by the University.

The result of the eco-labelling are reported in the yearly Course and Program Catalogue for the University as well as on the Internet Course and Program information. This makes it possible for the students to use the eco-labelling as one decision parameter when they apply for the courses and programs.

2. Definition and reporting

At the beginning of the eco-labelling process there was a discussion regarding the definition for Education for Sustainable Development. Should it be centrally defined for the whole University or should it be defined by each faculty, department or education subject? The discussion landed in a broad definition at a central university level and a possibility to make a more distinct definition on faculty, department or subject level. In the central level definition the text in the Higher Education Act was used: "The course or program shall promote sustainable development that ensures present and future generations a healthy and good environment, economic and social welfare and justice".

Furthermore the amount of sustainable development in the course or program was discussed. The discussions ended in defining three different criteria for programmes and
courses by framing questions within environment and sustainable development. The criteria are:
Criterion I: course/programme that mainly, more than 50 %, deals with environment and sustainable development.
Criterion II: course/programme that partly, less than 50 %, deals with environment and sustainable development.
Criterion III: course/programme that do not at all deal with environment and sustainable development.

A compromise was needed regarding “environment and sustainable development” as teachers in Science do not always consider themselves to be teaching sustainable development while teachers in Social Science and Economics on the other hand do not find it natural to just discuss the environmental part of sustainable development.

In 2005 the University course reporting system, GUBAS database, introduced at question on eco-labelling when the departments reported a course or a program to be given in the coming years. This means that for every course or program reported a question about eco-labelling was given in the reporting procedure. The persons responsible for activating the course or program reporting have to mark the courses and programs according to the criteria in a two step process. If they mark the course or program as dealing with environment and sustainable development, they get a second question on how much, with two alternatives. In this way the three criteria are fulfilled.

3. Eco-labelling symbols

The eco-labelling symbol was discussed and the Department of Student Affairs presented an initial suggestion. This first symbol had a look similar to a symbol used by the newspaper Metro as a signal to identify and market the newspaper. Because of criticism regarding the similarities between the symbols this symbol was changed to a symbol that was unique for the eco-labelling at University of Gothenburg. The current symbols for the two levels are seen below.
4. Results of the eco-labelling

The eco-labelling are shown in the University Course and Program Catalogue as well as in the Internet information on courses and programs given by the University. The results for the last years eco-labelling show that 7.5 to 9.7 percent of the programs and 6.8 to 8.2 percent of the courses are marked according to eco-label Criterion I. Criterion II eco-labelling are given to 15.0 to 23.9 percent of the programs and 16.0 to 22.4 percent of the courses, Table 1.

Table 1. Results from the last years eco-labelling at University of Gothenburg

<table>
<thead>
<tr>
<th>Year/Criterion</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program 2009/2010 (%)</td>
<td>11 (8.2)</td>
<td>32 (23.9)</td>
<td>91 (67.9)</td>
<td>134</td>
</tr>
<tr>
<td>Program 2008/2009 (%)</td>
<td>18 (8.5)</td>
<td>45 (21.1)</td>
<td>150 (70.4)</td>
<td>213</td>
</tr>
<tr>
<td>Program 2007/2008 (%)</td>
<td>16 (7.5)</td>
<td>32 (15.0)</td>
<td>166 (77.5)</td>
<td>214</td>
</tr>
<tr>
<td>Program 2006/2007 (%)</td>
<td>12 (9.7)</td>
<td>26 (12.0)</td>
<td>86 (79.3)</td>
<td>124</td>
</tr>
<tr>
<td>Course 2009/2010 (%)</td>
<td>145 (6.8)</td>
<td>409 (19.2)</td>
<td>1573 (74.0)</td>
<td>2127</td>
</tr>
<tr>
<td>Course 2008/2009 (%)</td>
<td>151 (6.9)</td>
<td>490 (22.4)</td>
<td>1548 (70.7)</td>
<td>2189</td>
</tr>
<tr>
<td>Course 2007/2008 (%)</td>
<td>105 (8.2)</td>
<td>224 (17.4)</td>
<td>958 (74.4)</td>
<td>1287</td>
</tr>
<tr>
<td>Course 2006/2007 (%)</td>
<td>103 (7.6)</td>
<td>215 (16.0)</td>
<td>1028 (76.4)</td>
<td>1346</td>
</tr>
</tbody>
</table>

5. Evaluating the system

There has been a discussion regarding the reliability for the University eco-labelling system. In the beginning the persons reporting the course into the university database (GUBAS) were not always familiar with the content of the reported course or program, as they were administrative staff. Therefore a discussion was initiated with different directors of studies to inform them on the responsibility to provide the administrative staff with the proper information for eco-labelling.

A student evaluation in 2008 showed that approximately 14 % of the students know about the eco-labelling system at the University and 10.8 % say that they had used the eco-labelling system when they decided on which course or program to apply for.

In a Bachelor thesis 2009 the students at the University were asked if they are familiar with the concept of Sustainable Development. The students were asked to respond on a four
point scale how well they know the concept of Sustainable Development, which corresponds to a one representing "not at all", and a four representing "very well". 38.7 percent responded that they know the concept very well, and 77.9 percent answered three or four on the scale. This result shows that the students feel more confident with the concept of Sustainable Development than the teachers at the University. This underlines the need for training of university teachers about the concept of Sustainable Development.

In a Master thesis 2009 a qualitative study was made to analyze the approach and application of sustainable development within six different research fields at the University of Gothenburg. The outcome of the study demonstrates the complexity of sustainable development. The analysis shows that the research fields that are investigated all relate to sustainable development in their own ways. The analysis further shows that four categories of research on sustainable development can be identified. The first category consists of the holistic, e.g. those fields that concern all of the important aspects that are presented in the analytical framework. The obvious are those fields that explicitly employ the concept of sustainable development in their publications. The one-dimensional are those that relate to sustainable development in their own way or opinion but in the publications only concerns one of the dimensions of sustainable development. The invisible are those who relate to sustainable development in one way or another but that don’t explicitly employ the concept of sustainable development in their publications.

This results show that it is difficult to have a common detailed definition on Sustainable Development for a large university, like the University of Gothenburg, that involve totally nine faculties with very diverse research fields.

The eco-labelling marking of courses and programs was repeatedly addressed during the discussion of the definition of sustainable development. There are still teachers that say they could not eco-label courses and programs with the poor definition that the University provide. The need of teacher training in Learning for Sustainable Development has thereby once again been manifested.

6. **Teacher training in Sustainable development**

In 2009 The Centre of Environment and Sustainability (GMV) was funded by the University board for staff training, to give a teacher training course in sustainable development and education for sustainable development. The course was funded since knowledge about and understanding of sustainable development is an important component of the workplace principles for all university employees, according to the University's strategic plan.
The aim of the course was to make the teachers aware of the concept of sustainable development, to give good examples on how the education could be carried out and finally how sustainable development goals could be implemented in the course and program curricula. The training was organized as two days of seminar and discussions with one month between for reading of course material and work in the department to test the ideas from the first day.

The initial question to be discussed during the teacher training was: What is sustainable development for you? This aim of the question and the following discussion was to explain and exemplify that sustainable development is a concept that could have a different meaning in different situations and subject areas. In this discussion the participants looked in to three different examples on environmental, economical and social dilemmas concerning sustainable development. The first example was the use of a river for power production, the second example concerned hybrid vehicles and the third example was focused on local versus global systems. After discussions in smaller groups all the participants met for a final discussion on the value of these group discussions of the examples. The actual discussions was the outcome of the process, not the answers of the questions related to each example.

An example of how sustainable development can be incorporated in teaching a university course is taken from one of the common courses on the first semester at teacher education program's general area. On the Teacher Education program training for sustainable development and education for sustainable development has been included in the syllabus of the course having approximately 1,000 students each year since 2003, with a positive result. In this teaching course, students work on a multimodal slide show - a “start key” - which is aimed at their prospective pupils. In this way, students must first get acquainted with what sustainable development means, and try to transfer this knowledge to a school field or subject which should be their professional field of work. This teacher training course is described and discussed in the article “Education for Sustainable Development in the Program for Teacher Training — start keys” also presented on this conference.

A training approach in the teacher training course is for the participants, together with the instructors, to look at the current course content of courses selected by the participants, work on some of the existing material and provide suggestions on how to introduce sustainable development to students in their particular course. In this way, the participants need to reflect on the meaning of sustainable development from their own perspective and – hopefully – after the training course they will be better on including and discussing sustainable development in their courses but the outcome should also improve the eco-labelling of courses.
The second seminar and discussion day starts with a presentation by a guest lecturer. Cecilia Lundholm from Stockholm Resilience Centre was the first invited lecturer and she gave her view on Learning for Sustainable Development, from the book Environmental Learning by Rickinson, Lundholm, Hopwood. Environmental education and education for sustainable development have become features of many countries’ formal education systems. To date, however, there have been few attempts to explore what such learning looks and feels like from the perspective of the learners. Based on in-depth empirical studies in school and university classrooms, this book presents rich insights into the complexities and dynamics of students’ environmental learning. Cecilia Lundholm discussed on the following elements: Change management, Learning, Teaching and continued with discussion on; students and learning experiences, feelings and values, relevance, different approaches between students and teachers.

The last part of the teacher training was the question on how to get goals on sustainable development into the course and programme curricula. Here we had persons that had been involved with curricula rewriting at the University given experienced insights of the process, success stories and some examples where it did not work out. In the discussions several ideas on curricula goals was described.

7. Concluding remarks

In general you could say that one third of courses and programs deals with environment and sustainable development while two thirds do not. This cannot be a satisfying situation and one way to meet this is to give teacher training courses for the university staff. The conclusion after giving the teacher training course twice is that training sessions like these ones have to be given on a regular basis to make at least one teacher in every subject/research field aware of and familiar with the possibilities to integrate sustainable development into their own teaching.

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