Sustainability degrees: The challenges and opportunities of a new discipline (0141)
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Introduction

Sustainability degrees have seen a significant rise in number over the past decade at the same time as 'Sustainability Science' has been seen as an emerging discipline (O'Byrne et al., 2015). Both emphasise the importance of interdisciplinary approaches to address sustainability issues (Clark, 2007), contrasting the mono-disciplinary structures of our current educational systems.
The role of education in working towards a more sustainable society is essential, and higher education is seen as particularly important because this is where most of the world's leaders are trained (Sibbel, 2008). Education for Sustainable Development can take many forms in Universities from compulsory or optional integration into traditional discipline-focussed programmes, to co-curriculum activities, to the role of the university estate as an educational tool, to entire sustainability-focussed undergraduate degree programmes.
Some have questioned whether such a new academic field, as Sustainability Science, should have degree programmes (Onuki and Mino, 2009), hence it is timely to examine the development of such programmes, and the challenges and opportunities that degrees in this field pose, in order to maximise their potential.

Methodology

This research focusses on undergraduate programmes in the UK which have sustainability or sustainable development in their title and are of a general nature. The degrees included in this research were found using 'sustainability' or 'sustainable development' as search terms in the University and Colleges Admissions Service website in 2009 and 2014/15. This search identified 10 degrees across England, Scotland and Wales in 2009 and 12 available for study in 2015 (with some closures and some opening of new programmes). In 2009, programme directors from the different programmes were contacted about taking part in this study, leading to telephone interviews with nine individuals representing eight different programmes. The interviews were transcribed and thematically analysed. The findings from these interviews are supplemented by the author's experiences of running an interdisciplinary sustainability-focussed undergraduate degree since 2008.

Results

The 12 degrees identified by the course search were represented by eight different names. The different names and their frequency are shown in Table 1.

Table 1. Frequency of occurrence of different sustainability-focussed undergraduate degree titles in the UK (2009 and 2014/2015)

Degree name	Frequency of occurrence
Sustainable Development	4
Environment and Sustainability	2
Environmental Sustainability	1
Flexible Combined Honours – Sustainability (Global Futures)	1
Environmental Change and Sustainable Development	1
Sustainability and Environmental Management	1
Environmental Management and Sustainability	1
Sustainable and Rural Development	1

The reasons for the development of these degrees reported by the interviewees varied between institutions. The reasons ranged from rebadging of (poorly recruiting) environmental management degrees, widening the portfolio of the geography-discipline, and an attempt to attract a "different kind of student".

Many of the degree programmes reported low recruitment, with typically small cohorts, often under ten students. To an extent this is offset by efficiencies in teaching through shared modules and administrative structures, but there is an acknowledgement of the impact of small student numbers on the potential longevity of these programmes. Understanding the reason for low recruitment is important for increasing student numbers, and for the longer term survival of these courses. Several interviewees saw the societal importance of these degrees, and found the poor recruitment inexplicable, with one interviewee querying "why are we not getting students through the door?"

Yet despite the small numbers of students there appears to be a difference in the student cohorts taking these degrees. Interviewees report that the sustainability programmes have very different cohorts to cognate programmes, typically with a higher proportion of mature and international students. However, the difference in cohort extends beyond this, with one interviewee stating that the course attracts a "very specific sort of student" with a "strong cohort identity". The majority of students are said to be highly motivated, as "people who tend to do sustainable development tend to really want to do it." These factors contribute to one interviewee reporting that these cohorts are "one of the most stimulating groups to teach." The authors own experiences also demonstrate that students on these programmes have played an important part in catalysing sustainability activity at their university. Therefore it can be argued that even with only small number of students, these courses can play an important role in the larger sustainability agenda of the university.

Discussion

The term 'Sustainability Science' was not used by any interviewee, despite the aims and interdisciplinary ethos of the degree programmes being broadly similar to this emerging field, suggesting a disconnect between programmes being developed (in the UK) and the broader academic field. The lack of consistency of degree name may partly reflect controversy about the use of 'sustainable development' vs 'sustainability', or the history of the programme's development, such as the rebadging of existing environmental management programmes. Through content analysis of programmes other studies have also shown inconsistency between programmes (Sherren, 2005; O'Byrne et al., 2015).

There are potentially many reasons for poor recruitment on these programmes. 'Sustainability' is not a school subject such as Geography; A-levels are inherently mon-disciplinary, providing little background for students to choose an interdisciplinary degree; nor is there a clear career route or visibility of associated professions, unlike other well-recruiting non-school subjects such as nursing, law and architecture. This is made more challenging by the newness of such specialist degree pathways and the paucity of alumni.

Conclusion

This study highlights a lack of consistency in the naming of these degrees, different reasons for their introduction, low student recruitment; yet distinct, and highly motivated student cohorts. The findings suggest a lack of coherence in the development of academic programmes in this field with potential implications for the longevity and establishment of these programmes, yet these programmes *can* make a significant contribution to the higher education's sustainability agenda, with longer term societal impact. If the potential of these degrees is to be fully achieved then there is a need for greater collaboration between institutions, secondary education providers, researchers and professional bodies to firmly establish an understanding of 'sustainability' as a distinct academic field and area of curriculum development and student recruitment.

References

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