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Exploring the relationship between sustainability and university curricula: a small-scale study

Patrick Baughan, Learning Development Centre, City University London

Abstract: This paper explores the concept of sustainability and whether there is a case for sustainability issues to be incorporated into university curricula, within the context of a single university. After discussing selected literature on sustainability, the main body of the work reports on a small-scale study undertaken at City University London by the author. Four members of staff were interviewed and invited to give their views on what sustainability is, and whether it should be incorporated into curricula. The results were diverse both in what they suggest about understandings of sustainability and the relevance it has to curricula. A number of closing comments are offered, and it is concluded that a more consistent perspective on what sustainability is and is for would be a useful starting point, before major areas such as curriculum change can realistically be pursued.

Keywords: sustainability; higher education; curricula

Introducing sustainability

The purpose of this article is to introduce a number of sustainability issues, and then report and discuss findings from a small-scale study that investigated university staff perspectives about sustainability and its link to university curricula. The aforementioned staff perspective is drawn from interviews undertaken by the author with four members of academic and professional services staff at City University London. By interviewing staff at our own university, it is hoped that a distinctive 'City voice' about sustainability can be provided to the reader, albeit in a small-scale manner.

There is already a range of sustainability activity taking place at City. This includes a Sustainability Group, and the provision of various events for students and staff in areas such as recycling, food sourcing, and transport. Staff at the University have undertaken research projects about, or related to sustainability, and there are also cases of sustainability-related teaching taking place. For example, the author of this work provides a 90 minute session entitled *Sustainability in the curriculum* as part a module on the MA Academic Practice programme.

The next section of this article offers some definitions of sustainability, and considers it in a higher education context. Following this, I provide a fuller discussion about sustainability in the curriculum, an issue and proposition that has received increased attention in educational research literature. In the latter sections, I explain the purpose and design of the present study. This is followed with a thematic summary and discussion of the findings.

Sustainability in higher education

Sustainability as a topic, or collection of topics, has attracted a great deal of interest both in higher education and in society at large in recent years, as demonstrated in various areas of policy, practice and research. It represents an increasingly prevalent area in higher education, thanks in part to a number of 'drivers', such as the expectation that universities should have a role in profile-raising such issues, along with Higher Education Funding Council for England (HEFCE) policies and requirements. In addition, during the last decade, there has been a proliferation of sustainability activity in the sector: it now forms a priority area for the Higher Education Academy (HEA) under its alternative title of *Education for Sustainable*

Development (ESD), there are dedicated journals on sustainability, and a 'Green League Table' is published annually.

Yet defining what sustainability *is* and *means* has posed a significant problem. Such concerns have been considered by authors such as Cotton, Warren, Maiboroda & Bailey (2007), who argue that sustainability is a '...contested and controversial subject', whilst Reid & Petocz (2006) refer to the lack of a sustainability 'lingua franca'. In fact, the contested nature of sustainability and sustainable development begins at the point of definition, so, for purposes of this article, I have quoted a few:

[Sustainable development is] ...development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987, p. 43)

Sustainability is a concept, a goal, and a strategy. The concept speaks to the reconciliation of social justice, ecological integrity and the well being of all living systems on the planet. The goal is create an ecologically and socially just world within the means of nature without compromising future generations. Sustainability also refers to the process or strategy of moving towards a sustainable future (Moore, 2005, p. 327, adapted from a definition originally written by Fien, 2002)

We use sustainable development... to refer to a broad range of environmental, social, economic and equity concerns, at both an inter- and intra-generational level. ESD [Education for Sustainable Development] is used... to describe the incorporation of sustainable development into teaching (Cotton, Bailey, Warren & Bissell, 2009, p. 722).

It is also worth providing a definition which derives from within our own institution:

The common view is that sustainability refers to the environment, when it actually refers to the relationship between environment, society and economy.
(City University London, 2010, p. 15).

Whilst there are a plethora of explanations of the term, sustainability as applied in a higher education context might reasonably be interpreted as an umbrella term that includes activities such as environmental management, energy, travel, recycling, university estates, carbon reductions, food policy, and sustainability in the curriculum. My own interest lies in the last of these.

Sustainability and university curricula

In this section, I discuss the more specific area of sustainability and the curriculum, and the proposal made by some authors that sustainability should be made available to students as part of their curricula. Sustainability issues are starting to be included in higher education curricula, albeit in a rather select number of them. Several studies have presented arguments advocating its integration into the learning and teaching process, one of the first of these being Sterling (2001), who referred to a need for a 're-orienting' of learning approaches. Other studies that have presented a case for sustainability to be embedded in curricula include Chase (2010) and Shephard (2008) though successful examples do seem to be associated more closely with particular institutions and particular disciplines (Koger & Scott, 2010; Chase, 2010; Reid & Petocz, 2006). Cortese (2003) argues that higher education has a critical role in promoting what he refers to as 'sustainable futures', with closer links needed between teaching and research at one level, and community and sustainability at another. Readers can find examples of sustainability curricula initiatives in a collection of papers published by the Staff and Educational Development Association (SEDA) (Cotton, Sterling, Neal & Winter, 2012).

Whilst particular institutions are associated with promoting sustainability, certain disciplines are also linked with its profile raising, such as psychology and economics, though perhaps it lends itself more naturally to these disciplines than it does to others. There have been a number of discipline-based projects, one example being that published by the Psychology Network, a former subject centre of the HEA (Koger and Scott, 2010). The authors explain that, because many environmental problems originate in human behaviour, psychologists are often called upon to contribute sustainable solutions to these problems.

However, the inclusion of sustainability in curricula has its challenges and its critics. Chase (2010) argues that curriculum change cannot easily be imposed and deciding how to change the curriculum is complicated by the fact that there are numerous curricula within any institution. Witham (2010) found that academics are not convinced of the relevance of embedding sustainable development in the curriculum, whilst those willing to try have no model for how to go about doing so. Unfortunately, though some universities have developed more sustainable estates, pro-sustainability curriculum change has been harder to achieve (Cotton Bailey, Warren & Bissell, 2009). Reid & Petocz (2005) suggest that for sustainability to become a core concept in higher education, it needs to be linked to 'generic capabilities' and the core curriculum. More recently, Cotton *et al* (2009) added that there remains a strong mismatch between ambitions set out in policy, and the reality within the sector. There are also fewer student-based studies about sustainability in the curriculum, an exception being that by Kagawa (2007), who examined dissonance in students' perceptions of sustainable development. Kagawa found that whilst the majority viewed it to be a 'good thing', most only associated it with environmental issues.

To pull these points together, there is some enthusiasm for integrating sustainability into curricula, but there are also challenges involved. What we see is a somewhat scattered approach based on actions within particular institutions and disciplines. There are additional issues which warrant further discussion but are beyond the scope of this paper: what areas of sustainability, if any, should be incorporated into university curricula; should sustainability modules or teaching be part of a learner's core curriculum, or should it be made available as a voluntary part of the curriculum? For purposes of this paper, however, my aim was to capture staff views about sustainability at City, in relation to the issues addressed above.

Purposes of the study

In the preceding sections, I provided some definitions of sustainability and discussed some of the literature about integration of sustainability issues into curricula. For the empirical part of this project, the intention was to examine staff views about these areas at City University London. The study involved interviews with four staff, all of whom were either familiar with or had a more extensive knowledge about sustainability. I interviewed two staff who have a direct connection with sustainability as part of their professional roles, and two who work in educational development, and could therefore offer views about whether they thought it could and should be applied to curricula. The study was not intended to be in any way representative, nor promulgate a particular argument, but it did provide the opportunity to collect data about a contemporary issue, within the City context.

Research design and implementation

As I was seeking the views and perspectives of individual staff, I elected to use semi-structured interviews. It was helpful to draw on the work of Cousin (2009) who offers advice

about interviewing in educational research, and Bell (2005) who provides guidance on devising the interview schedule. My interview schedule began with introductory questions, followed with a small number of questions about each of the main themes of the study: what sustainability is; its relevance to higher education; whether sustainability should be introduced into higher education curricula. Still, questions were open, with the intention that participants could raise other points if they chose to. It was important that the study took account of appropriate ethical issues, so advice offered by Bell (2005) about ethics was followed and checks were made within the institution to ensure that the study could be undertaken. Once this was achieved, an information sheet and consent form was written, the latter of which participants were asked to sign before they were interviewed. All participants were assured that their identities would be kept anonymous.

All four of the parties invited to participate accepted the request. Each was interviewed individually at the University. Brett Davies (2007) discusses a number of good practice principles for the interviewer to follow (for example, doing what can be done to make the participant feel comfortable; conducting the interview at a steady but relaxed pace) and an effort was made to follow these. Interviews were recorded using a digital voice recorder and transcribed by myself.

I used a thematic approach for analysing the data, in accordance with guidelines provided by Cousin (2009). However, for purposes of this study, a provisional 'pre-allocation' of themes took place. That is, because each interview raised questions about what participants thought sustainability is, their view of sustainability in higher education, and their views of sustainability as applied to curricula, it was felt that it would make sense to base a theme on each of these three areas. However, the analysis approach was not restrictive, in that if it yielded additional or stronger themes, these would be adopted in order to give the most accurate rendering of the data possible.

Findings

After several readings of the data, the findings were organised under four themes.

1. Understandings of what sustainability is

This theme refers to what sustainability means, and particularly what it means within a higher education context. Participants offered different views about this, but whilst some interpretations were descriptive, others incorporated opinions.

...it would encompass the three main areas of sustainability – the environment, the social aspects, and the economics. [The social aspect] is all around ethics and corporate social responsibility and all that goes in hand with that.

Sustainability is a word that is used from many different perspectives, from a very simple point of view, just being able to carry on existing in whatever form up to very detailed and complex definitions. I think in terms of higher education, sustainability is looking at making sure that institutions move forward in ways that is not storing up problems for the future of that university... There are often three elements in higher education. Level 1 is the curriculum, one is the structure and running of the building itself, and the other is research.

I suppose in a higher education context, and particularly for some of the work that we are involved in like curriculum and learning and teaching, it's about ensuring that whatever we're developing or techniques or strategies we are using are sustainable in the future... to me it's about making sure that the things we do carry on irrespective of the circumstances.

I think it has become a bit of a buzzword like many others. They come and go.

We can see from these quotations that perceptions about what sustainability vary. It is worth pointing out that more detailed explanations tended to arise from the participants working in a sustainability role.

2. Sustainability and greening behaviours

Though not explicitly asked about, the participants each raised environmental or 'green' issues in one or more of their responses. In a way, this added to their explanations of what they perceived sustainability to be. Interestingly, when referring to the 'greening' aspects of sustainability, participants were positive in their views:

I do believe in it, and I believe that we all need to take responsibility for ensuring that we are responsible citizens in terms of environmental sustainability.

I like the idea of what they've done in terms of thinking about local sustainability, making the organisation more green... I think initiatives like that are quite positive and can actually engage people.

I suppose... things people think about with sustainability are things like environmental issues, making sure that we're taking care of green issues.

We might deduce from this that participants often tend to consider sustainability in terms of pro-environmental behaviour, more so than other areas and issues.

3. The relevance of sustainability to higher education

Again, participants provided differing views. However, there was a discernible, albeit expected difference between views provided by the two staff whose roles include a sustainability component (as illustrated in the first three quotes) and the staff who work in educational development roles (as illustrated in the last one).

I think it should be right at the heart of every institution. It shouldn't be seen as some sort of luxury add on.

First and foremost is the senior level engagement and support... because without that, it's [sustainability] just not going to materialise. The second thing is that I think we need to be more proactive in what we're doing around sustainable development because I think that will instigate a huge awareness change... And then I think, lastly, the whole thing about communication... So I think it's about this very thing, engaging people, making people aware of what's out there, what's happening and so forth.

I feel that sustainability trumps everything else and I can't understand why some people don't think so. It incorporates everything... It's everything we need to do to survive.

Well, I think City needs to have a view of what it is beforehand otherwise we could be introducing students to a whole array of items like sustainability, like green, like graduate-prepared... They could be worn out by induction day.

4. Sustainability and university curricula

It was this area that attracted the most detailed responses, so more quotations are provided here to give a fuller sense of these responses. Again, those with the experience of working in sustainability tended to ascribe greater importance to its inclusion in curricula, whereas the two educational developers were more cautious. First, some of the comments broadly in favour of a greater sustainability component in curricula:

I think that we have a responsibility to educate our students about sustainability, and that's where I think we're really falling short, and in my mind we'll end up lagging behind other universities....

It should go right through the curriculum, all the guides and backgrounds to modules should have a sustainability tick box as to what they should address. Because if you look at it in detail almost all courses and modules can relate in some way to sustainability.

I think that all new students need a sustainability induction of some sort as a minimum... it's as basic as reading and writing if you can't read and write. And I think that everyone needs to be made aware of the issues that we're facing as a world-wide community, and I also think... that we need to be looking more at specific areas of sustainability that we can incorporate into our curriculum with specific programmes and courses.

I think the way to tackle is that you don't necessarily need to put anything new into the curricula. It's just that those areas that are already there could be looked at through a different lens, so it's not necessarily a whole chunk that has to go in somewhere for which there isn't any room....

It's difficult to make the argument that you don't want to be sustainable, because sustainability, taken down to its literal meaning, is about whatever you carrying on or your family carrying on, or your family or your country carrying on in a way that's ok, that can develop.

And now, some quotations implying more caution about sustainability and curricula:

I think when you have '-ability' at the end of a word... that staff often feel there's new initiatives, and they are asked to build more and more into their curriculum. So the year before, it had been employability and before that it had been personal development planning. And you know, we've got content that we need our students to know, and I think there is a tension there as to where it fits... I think that when academics often see the word '-ability' after something that it tends to go, and often they don't feel comfortable with that area, it's not their area of expertise.

I think that a lot of stuff that we teach to students does [already] relate to sustainability. It's just that we don't always label it as sustainability... we talk to the students about resources, we talk about them doing more on line... That is about being sustainable and managing their increasing numbers.

There's so many variations of what people would define sustainability as – trying to put that into a curriculum and making it relevant to people is actually quite difficult.

[It] should be embedded. It's like diversity. Do we want a whole separate module on diversity? No we don't. It should be across all modules, and actually if we want people to take sustainability seriously it should be across all modules...

However, when asked whether, as an alternative to seeking to build sustainability into curricula *per se*, an optional module about sustainability made available to all students would be valuable, responses were more consistently positive:

It could be quite interesting, yes. And I think there's lots of issues if you look at it from sort of the widest perspective of sustainability.

The notion of the sustainable curriculum was also interpreted in different ways. Whilst it generally refers to including a component of sustainability issues within the curriculum, it might be interpreted as making the curriculum itself sustainable:

We've been focusing on creating curricula that are sustainable [that] won't need to be re-done each year and that can be scaled in some way, so that you're not locking yourself into something that you can only teach to 20 students.

Finally, a few references were made about the possible use of technology as a method for integrating sustainability into curricula. This was not explored in follow-up questions, though further investigation of the area would surely be useful.

Discussion

The findings are broad in scope and characterised by individual differences in views amongst the participants, though this may be partly attributable to the small sample size. Still, the findings show some differences in perceptions of what sustainability is, and stronger differences in terms of whether it should be addressed in curricula. Accounting for previous research (for example, Cotton *et al*, 2007; Witham, 2010), this is not entirely surprising.

The results also enable some comparison to be made of views expressed by staff working in sustainability with those of staff working in educational development. Whereas there was a level of overlap in interpretations of sustainability, there were clear differences in responses to questions about curriculum: the two participants working in sustainability roles offered some relatively impassioned responses here, whereas educational developers were more guarded, adding to concerns on this issue previously documented by Chase (2010) and Witham (2010). One explanation for this is that educational developers may have seen fewer working sustainability-informed curricula as compared with their counterparts in the study; conversely, those working in sustainability may not fully grasp broader curriculum challenges that educational developers have to deal with. We should also note that educational developers posed different interpretations of what sustainability in the curriculum actually *meant*, namely that it could refer to reviewing the curriculum itself *for its own sustainability*. This is an altogether different interpretation from one based on *content* about sustainability. In a way, then, participants were addressing questions from the perspectives of their own professional backgrounds. Finally, as mentioned above, an area of similarity amongst responses is the regular featuring of references to environmental issues in their conceptions of sustainability, implying that this represents the strongest issue that participants equate sustainability with.

Overall, accounting also for the sustainability literature that I have reviewed, the findings indicate that City staff are not untypical in terms of their conceptions of sustainability, in that their responses feature different perceptions and views about it. This may present a challenge for those involved in promoting sustainability, as it is still seen in such broad-based ways.

Closing comments

This work has considered sustainability in relation to university curricula, firstly, through an account of selected literature, and then by way of interviews with four staff based at City University London. Results from the interviews suggested that participants had different, though overlapping understandings of sustainability, whilst views about its application into curricula yielded more positive responses from those that work in sustainability than those who work in educational development. For the most part, these findings are probably what we could have hypothesised, but they do provide a small-scale 'City voice' about sustainability.

In conclusion, there remains a need for more coherent and consistent definitions of sustainability to be used: this applies to the sector as a whole. The results of this study show that there are different understandings of it and even different understandings of what sustainability in the curriculum means. The findings also indicate that whilst there may be a case for considering sustainability for inclusion in curricula (perhaps as an option for students), there are barriers and concerns associated with this. Therefore, staff connected in some way to these issues might benefit by discussing them together, to arrive at more common understandings, to give a better chance for progress to be made. Finally, before decisions are made which affect curricula, and therefore aspects of the student learning process, there is a need for more research which draws on student perspectives about sustainability. During the forthcoming year, my research will, therefore, involve comparing student and staff views about sustainability in a much larger scale work.

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