



Preparing students for the workplace & sustainability skills

The UoM Sustainability in the Curriculum Community of Practice

Phrases such as ‘the circular economy’, ‘creating shared value’, ‘social responsibility’ and ‘negative externalities’ reflect growing company/organisational concerns around socio-environmental issues. On June 18th, 2014, the UoM Sustainability in the Curriculum Community of Practice (CoP) focussed on this theme discussing:

- the understandings and skills graduates need to help develop the sustainability initiatives of companies/organisations;
- how the academic community can help students develop these understandings and skills;
- How the importance of such understandings and skills can be conveyed to students;
- how the importance of such understandings and skills can be conveyed by students to academics.

The meeting began with a presentation from Azar Shahgholian (MBS) on how these understandings and skills are being developed on two MBS undergraduate courses.

This document briefly summarises points made at the meeting and in follow up emails. It is hoped that it will act as a prompt for discussion at future meetings and will be informative to anyone thinking through aspects of sustainability in the curriculum, both within and beyond academic contexts.

Why discuss this theme?

A growing number of organisations and commercial businesses are working to understand how they can act in more sustainable ways, limiting their negative impact on the environment and creating ‘shared value’, where the ‘policies and practices’ of the organisation feed into the economic and social well-being of communities (Porter & Kramer, 2011: p.2). The term, ‘sustainability’ is diversely understood in these organisations and companies. It is generally coupled with the word ‘growth’ and is dubiously deployed in some marketing patter. This said some companies appear to be outpacing the rest of society in fostering environmental and social responsibility.

As this focus on sustainability increases so too does the need for employees and future leaders versed in understandings and skills related to sustainability. This fact has not escaped students, as a recent Higher Education Academy study on ‘first-year student attitudes towards, and skills in, sustainable development’ suggests, with 80% of respondents believing that ‘sustainability skills are going to be important to their future employers’; (2011, p. 3).

In addition to students being employed in the private sector they will have opportunities in the public and other sectors too where they will be able to apply ideals of sustainability, for example in various types of bodies involved with regulating the private sector.

Such bodies have to ensure that methods and uses of resources are not dominated by the aim of maximising short-term profits at the expense of longer-term viability so that gains may be shared by future as well as current generations of stakeholders and consumers

In many ways then, the growing focus on sustainability at the UoM is consonant with the sustainability agendas of organisations and companies. As one person at the meeting put it, “the University is pushing at an open door”.

There are obviously, creative discussions to be had with external organisations and companies regarding the understandings and skills they see as valuable. The below thinking will help feed into those discussions.

1. The understandings and skills graduates need to help develop the sustainability initiatives of companies/organisations

1.1 Engaging with complexity

There was a general consensus that sustainability issues are complex and that students need to develop the capacities to engage with these complexities. Agar Shahgalian, in her discussion of two Manchester Business School (MBS) 2nd level Undergraduate courses¹ emphasised the course aims of fostering:

- creative thinking;
- problem solving skills;
- research skills (sourcing, collecting, collating and analysing information information);
- communication skills (e.g. clearly communicating project findings to various audiences/readerships);
- collaborative skills

Students on the courses undertake assessed projects in groups in order to produce ‘business intelligence’ that has ‘real world’ utility in helping UoM campus achieve its sustainability goals.

All of the above capacities and skills can be mapped onto other skills on which they are potentially contingent. Effectively sourcing information, for example, can be contingent on digital literacy skills, given that information is increasingly sourced via the internet. An ability to identify web sources that have covert vested interests, for example, is integral to producing reliable business intelligence.

¹ Course outlines:

<http://courses.humanities.manchester.ac.uk/undergraduate/module.html?code=BMAN20461>
<http://courses.humanities.manchester.ac.uk/undergraduate/module.html?code=BMAN20502>

The facility to collaborate, particularly in international contexts, requires an understanding that individuals are culturally biased and bring varying perspectives to their work, perspectives that can inform the way sustainability is integrated into sustainability agendas and that can potentially enrich understandings of the best way of approaching sustainability challenges.

The understandings and skills on the MBA courses have points of consonance with other courses at the University. Bland Tomkinson sent on information about an MA course (MACE) on project managing humanitarian aid. The course aims to facilitate the development of professional skills but also the skills the students need to 'take their places in an increasingly complex world'². A set of 12 sub skills, perceived as key in professional environments and to engaging with complexity, tease out some of the qualities of a good communicator, a team player and a researcher. Notably then, there are academics across different parts of the University facilitating the development of skills sets seen as key to engaging with complexity.

The student driven projects discussed by Agar generated opportunities for students to work with metric values/ numbers and scale. Carly McLachlan (Tyndall Institute) articulated the need to refer students to the numbers (in relevant scientific literature) , and the light they cast on 'the scale of the [climate change] challenge' and on the 'scale of the reduction of emissions required for different levels of impacts and the related adaptation required if such levels are not achieved'. Understanding the numbers (as these are discussed in relevant science texts) and the ways in which researchers calculate their impact, and determining, on that basis, what actions and the extent of action an organisation can take to reduce their impact, requires a level of skills that, arguably, few graduates possess. Such skills are likely to be in demand in those organisations serious about charting their own progress against the extent of real change needed.

In relation to this point, Carly also raised the concern that understanding the real scale of the change needed could demotivate students. She suggests that the dilemma might be presented to students as a problem solving challenge: how do you engage people with the scale of the changes that need to be made without them switching off? The question might be differently framed so that it becomes one of 'how do you change societal systems so that emission reductions are not dependent on individual actions but on systems design (Steinberger³)? The first question points to significant communication skills and understandings of human psychology. The second points to good systems thinking alongside understandings of human psychology etc.

1.2 Values as well as skills

² Bland Tomkinson has a number of publications on the skills students need to address 'wicked' challenges and ways of facilitating the development of these. Please contact Bland if you wish to read his publications:

c.tomkinson@manchester.ac.uk

³ Steinberger, J. (2014) Conference Presentation as part of the Debate Panel: Individual Responsibility and Climate Change Mitigation: Tyndall PhD Conference: Climate Change Research in Practice, Manchester, 25th April.

The point was made that sustainability skills should be taught alongside a focus on values. This is a point discussed in some depth in the sustainability education literature often in relation to ‘transformative learning’ where individuals ‘reframe’ their ‘assumptions or habits of thought’ (Sterling, 2011, p.19). Sterling sees a reflexive understanding of one’s values and a willingness to critically engage with these, and an openness to the values of others as essential to changed behaviours and action.

This capacity to analyse value systems with honesty and clarity may be useful in the context of companies reviewing their values and aiming to create ‘shared values’. Gaining ‘a far deeper appreciation of societal needs, a greater understanding of the true bases of company productivity, and the ability to collaborate across profit/nonprofit boundaries (Porter & Kramer, 2011), is contingent on a critical appraisal of existing values within companies and an understanding of ways they may be shifted.

On a final point in this section Ross Jones (SEED) suggested that all students should leave the University ‘with a basic knowledge of how business works, and about sustainability, because both aspects are key to a sustainable, competitive economy’. This maybe approached, he suggests, by exploring the historical and current carbon footprints of industry/business, how this has ‘grown or shrunk over time’ and the factors influencing that growth or shrinkage, e.g. via technological innovation.

1.3 Understandings and skills: covering old ground?

It was noted in the meeting, that the understandings and skills associated with sustainability literacy are the same ones discussed 20 years ago. What is now required are understandings of how to introduce these effectively into the curriculum and how top-down leadership can facilitate this process.

While there seems to be some convergence in the understandings and skills needed at the UoM, e.g. good communication skills, this still leaves questions to be thought through: Should all students have all the understandings and skills that are related to sustainability literacy? Should they all be able to engage with ‘the numbers’ in scientific papers? Do we think, as did David Orr in 1991, that no student should graduate from a higher educational institution without a set of ‘basic’ understandings including: ‘the laws of thermodynamics’; the ‘basic principles of ecology’; ‘appropriate scale’ and ‘least cost, end use analysis’?

2. What the academic community can do to help students develop these understandings and skills

If a general consensus could be reached at the University as to the understandings and skills students will need, then the question of where they are introduced becomes central. An overview of where students would have the opportunities to engage with sustainability would be vital. In a previous CoP meeting, we discussed the proposed ‘grand challenge’ events and how events on sustainability could sensitise students to sustainability issues. Could these events act to introduce students to some of these skills? What role could the University College of Interdisciplinary Learning (UCOL) play in

developing these skills? Should each course offered via the college facilitate the development a majority of these skills? Should the UCOL curriculum generally be more deliberately oriented around these skills? Could academic staff from all faculties get together, for example, and think through what a course that fostered all of these understandings and skill might look like. Could this constitute a future activity for the CoP?

Ross Jones was 'taken with the idea of getting all students to do a UCOL course at some point during their degree'. He sees this as a way of introducing students to sustainability issues in a non-preachy, innovative manner' and preferable to a one-size fits all approach in which students receive the proverbial 'lecture on sustainability'.

This emphasis on innovative approaches is echoed by others in the community. Carly McLachlan notes that 'a lot of people who like team work and problem based learning etc also happen to 'like' sustainability. She goes on to say that 'the nature of the real world problems we are looking at and their complex, cross disciplinary and uncertain nature make these sensible bed fellows'.

The case can be made then that pedagogical approaches such as problem based or enquiry based learning naturally develop most sustainability-related understandings and skills.

3. How the importance of such understandings and skills can be conveyed to students

A number of ideas were put forward in relation to this question. Some of these related to ensuring that the UoM's commitment to developing 'the knowledge and practical skills to make a positive environmental impact in their professional and personal lives' be reflected through as many information channels as possible. It was suggested, in this regard, that the CoP liaise with the Career's Office to explore ways in which the value of sustainability-related understandings and skill, as perceived by organisations and companies, can be conveyed to students. All information packs for prospective students could reflect that commitment. There could be greater reference to sustainability related understandings and skills in course unit outlines and programme handbooks. A future CoP meeting could be dedicated to looking at ways of integrating a focus on sustainability skills into course unit outlines.

➤ how the importance of such understandings and skills can be conveyed by students to academics

Students can be significant drivers in ensuring that they gain the understandings and skills to make positive contributions to sustainability challenges in their professional lives. Importantly also they can be valuable informants in the way a focus on these skills is integrated into the curriculum.

A number of suggestions as to how this engagement can, and is, being facilitated were made. Ross Jones suggests that students could act ‘as ambassadors for their disciplines when they do [UCOL] courses, feeding back to academics during and/or at the end of the course on what they learned from students in other disciplines’. He also suggests (quoted in full) that:

- ‘if it is an applied / client-focused course such as ‘Interdisciplinary Sustainable Development’, it would be really valuable for students to try to report back on how a particular organisation (be it a business, charity, community group or local government department) ‘sees’ sustainability. Do they consider it important? What actions are they taking to be more sustainable? This is a really innovative, student-centred way to get them to engage with sustainability issues in an active way, rather than through traditional ‘chalk and talk’ methods. The University of Manchester has a strong tradition of Enquiry-Based Learning, and this approach is perfect for getting students to engage with sustainability related issues’.

Ross’s idea resonates with the idea mooted at the meeting that students could be involved in the creation of an archive of localised notions of sustainability (how people understand and engage with socio-environmental problems as reflected in students’ own understandings, in different organisation, and other Manchester contexts). Such an archive would serve as a potential resource for place-based projects in the curriculum. These would be largely driven forward by students through PBL or EBL or similar. Orr (2012)⁴ argues that models of sustainability need to respond to the specificities of different contexts. This is implicit in the notion of shared value where companies need to respond to the needs of the localities in which they are based. Responding in ways which really benefit the community is a challenge. It would be one graduates from the UoM would be well placed to address were they to engage in such place based projects.

4. Final remarks

These notes provide some sense of the broader conversations at the meeting and the richness of the discussion there. The CoP will provide a space for these discussion to be continued, extended and converted into concrete initiatives.

There are definite curriculum initiatives going on around the University, which, while they are geared round different subject disciplines testify to consonant understandings of the generic understandings and skills that students need to contribute to sustainability challenges in their professional lives. There remain questions as to the breadth of understandings and skills students might need.

Students cannot make significant contributions to a discussion of the understandings and skills they need. The CoP to this and other ends will continue to forge links with students.

⁴ Orr (2012) Conference presentation: Earthian Series on Sustainability and Education. Bangalore. http://www.youtube.com/watch?v=uK1gG7_9nFA

On a final note, the bottom up initiatives taken on by staff and students will need to be supported by leadership in faculties and schools. Without this support it is unlikely that any of these initiatives can take root.

References

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