Design Thinking: A framework for student engagement? A personal view

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I have been involved in student engagement for many years: long before the term was coined, it was central to my thinking and to everything I worked towards, whether as a school teacher or as a teacher and researcher in higher education. Having initiated the first Change Agents initiative for students some eight years ago, I am now directing a HEFCE-funded project known as REACT, focused on engaging so-called 'hard-to-reach' students across fifteen UK universities. This major initiative involves, as a key project outcome, the development of a collaborative website; I include here a telling and very relevant extract from my introduction to this site:

'Student engagement has come to mean many things to many people, to such an extent that it has perhaps become too diverse to have any clear meaning. It has been linked to student participation, involvement, commitment, effort and motivation; to Student Unions and to academic study; to developing new relationships between staff and students and to students' having a 'voice'; to partnership, co-creation and collaboration; to student satisfaction, retention and completion; to enhancement and quality'.

This text very much echoes something I previously wrote for publication some three years ago (Dunne and Owen, 2013) and I believe it still to be true. However, I feel chagrined to think that, all this time later, I am merely repeating these words without responding to the issue contained within them: What, exactly, is student engagement? If we were clearer about this, or if there were some kind of explicitly-shared view, then maybe we could get better at it. Universities might be able to engage better with students or, perhaps, students might be able to engage better with universities. Or both? The same may be true of the more recent expression 'student partnership', whose diverse and proliferating meanings and practices are already defying clear and consistent interpretation, and we find the term bandied about without associated action or context.

This is not because definitions are lacking. Probably most noted is the one by Trowler (2010), stating that student engagement is '...concerned with the interaction between the time, effort and other relevant resources invested by both students and their institutions intended to optimise the student experience and enhance the learning outcomes and development of students and the performance, and reputation of the institution'. Given that this is the crux of the matter emanating from an extremely detailed review, it seems far too dense a statement, too long and difficult to read and with many different aspects, concepts and activities embedded within it. More to my liking is a recent suggestion from the school context: '...student engagement refers to the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education' (Abbott, 2015). This, to me, although it focuses only on student learning, captures the spirit and personal richness of student engagement; however, it is a focus too limited to encapsulate fully what I consider counts as student engagement in universities today.

Look up 'student engagement', or 'students as partners' online and you will find any number of further definitions, practices, books, reports and papers from such authoritative bodies as the QAA, HEA and NUS and from numerous educational institutions worldwide, all extolling the virtues of student engagement and partnership in their many and varied forms. And thus we travel full circle: 'Student engagement [or partnership] has come to mean many things to many people, to such an extent that it has perhaps become too diverse to have any clear meaning'.

So, what to do? Try to write a better definition?

Or change the subject! Try a new approach!

A few days ago, I was put in touch with a student from the highly-successful Elon University in the USA. He wants to talk with me about Exeter's Students as Change Agents initiative and to learn more from me about the programme and its origins. In his initial email to me, he included a set of forty-two PowerPoint slides. My heart sank. Did I really have the time or inclination to look at all this? Such activity has to be undertaken for love, not money; it is not part of my work role and there are so many other things I need to do with my time.

However, I remain genuinely passionate about student engagement, about students, about learning, about change in higher education; and I was curious. Luckily! I immediately realised that I would be learning as much from this student as he from me, that he would help me to focus and move my thinking in new directions, to understand and describe my long-term practices, to capture something about student engagement that I had never previously deeply recognised or been explicit about. And all this was achieved by, and encapsulated within, two very familiar words that he used in his slides, but which I had never seen used together: 'Design Thinking'.

It may be that I am badly read, don't follow the trends, or simply study the wrong subjects. It may be that many readers of this piece have seen and used these words. I admit, however, that not only had I never seen them used together but, further, I had very little clue as to what they meant and couldn't really work it out. So, as we all now do (even when academics tell us we shouldn't), I went straight to Google, thereby confirming that I'm badly read and don't follow the trends or appropriate subjects. The many links from Google to pages, articles, definitions and think-pieces on Design Thinking demonstrate this clearly (though they do tend to emanate mostly from the world of business rather than education).

It seems there has been quite a lot of recent discussion about what Design Thinking is and 'how businesses can leverage it'. Indeed, it is considered to be 'a proven and repeatable problem-solving protocol that any business or profession can employ to achieve extraordinary results' (Fast Company, 2016). As I am not impressed by this kind of hyperbolic spin, I looked further.

Wikipedia quotes Herbert Simon, in *The Sciences of the Artificial* (1969), who "defined 'design' as the 'transformation of existing conditions into preferred ones' (p. 55). Design thinking is, then, always linked to an improved future. Unlike critical thinking, which is a process of analysis and is associated with the 'breaking down' of ideas, design thinking is a creative process based around the 'building up' of ideas. There are no judgments in design thinking. This eliminates the fear of failure and encourages maximum input and participation.

Wild ideas are welcome, since these often lead to the most creative solutions. Everyone is a designer, and design thinking is a way to apply design methodologies to any of life's situations".

I'm struggling still to make complete sense of this paragraph. I know I'm interested in the ideas and I understand the words on a surface level, but I am still grappling with the exact nature of the concept they promote. This is ok (if frustrating), given that I believe that learning should sometimes be hard; deep learning may require a serious restructuring of understandings, which takes time and effort. Learning is not always fun, but it can be an interesting challenge! Yet I'm supposed to be an expert learner and am known as a national expert in student engagement. I realise my difficulty lies in the application of the words to a real context. So I consider a context that I know well - that of Students as Change Agents. The processes outlined by Simon (above) are just those that I associate with acting as a change agent: being actively engaged with change and new ways of working, always 'looking for an improved future', seeking 'creative solutions', 'building up' ideas and assuming no specific 'right' or 'wrong' answers. The words characterise exactly the differences between this and what is often considered to be academic learning, comprising 'analysis', critical thinking' and the careful 'breaking down of ideas'. Simon suggests, I think, that critical thinking and design thinking are opposite processes. In some ways, they may be, but I see them, rather, as on a spectrum and intertwined. The change agent is someone who can analyse a problem, who notices what could be improved, who can 'break down' issues coherently, but who then uses that knowledge and/or deep understanding to 'build up' and develop solutions in new and imaginative ways, to know what will be improved and how, so as to provide 'an improved future'. This is the very essence of Students as Change Agents.

So what does this have to do with student engagement more generally, or with clarifying what student engagement is, or means?

Very recently, Gibbs (2016) has written a highly-critical blog piece on student engagement, characterising it under six headings: students' engagement with their studies, with their institution's campus, in quality assurance, with teaching enhancement, with teaching and with research. Gibbs' critical analysis is much needed and these are apposite and useful terms in conceptualising the variety of student engagement activities as currently interpreted in higher education. It is hard to be sure, but they might well cover the many diverse names, approaches, philosophies, schemes and ways of working that encompass student engagement activities. To list a few:

Students as Partners, Student Partnerships, Student-Staff Partnerships, Students as Researchers, Students as Co-Researchers, Students as Learners and Teachers, Students as Change Agents, Students as Change Makers, Student Fellows, Student Colleagues, Students as Producers/Co-Producers, Students as Co-creators, Students as Co-constructers of knowledge, Students as Champions;

Engagement in learning, in active learning, in reflection, in enquiry;

Engagement with the institution, Engagement as practice, Epistemic Engagement, Civic Engagement, Community Engagement, Work-based Engagement;

Deliberative democracy, a dialogic classroom, a participative paradigm, a Teaching and Learning Academy.

There are also many activities that engage students, such as peer mentoring and peer support, buddy schemes that relate to any range of activities from the academic to the social; the many activities linked to student representation and participation, such as in volunteering or societies or sports; curriculum-based, co-curricular, or extra-curricular, led by academic staff, Student Unions or Guilds, driven by an institutional, faculty or discipline approach, and so on. All of these probably do link in some way or other to the definitions of student engagement by Trowler and Abbott provided above, as well as to the list from Gibbs, but that relationship remains complex.

I wonder then if, or to what extent, the concept of Design Thinking could begin to serve as a means of clarifying any of these terms, in the same way that it has for Change Agents. To test this out, I decided to add in a further dimension - that of 'teacher-led', as opposed to 'student-led', learning - and to see where it might take me! I selected this because of my belief in enabling students to grow into independent, self-sufficient and effective learners as a key purpose of higher education. This also was emphasised by the major Teaching and Learning Research Programme run through the Institute of Education from 2000 to 2009. Their publication on Higher Education includes the following: 'Effective pedagogy promotes the active engagement of the student as learner. The main aim of higher learning should be learners' independence and autonomy. This involves engaging students actively in their own learning, and ensuring that they acquire a repertoire of learning strategies and practices, develop positive learning dispositions, and build the confidence to become agents in their own learning'.

I present my current thinking in Figure 1 - Four Modes of Student Engagement - a framework which is the outcome of putting these two dimensions together and describing and exemplifying each resulting quadrant. It again tested my thinking to achieve this and I may have got it all wrong. What I think it has highlighted for me is that student engagement is indeed complex and that it does take multiple forms, but that these four quadrants might in some way cover all those forms and serve as some kind of means to differentiate between modes of engagement. As Trowler (2010) suggests, student engagement has to relate to a student's learning in higher education and the quality and experience provided for that learning. And, for the student, it is not about being active or busy, or about easy achievements, but about deep commitment, self-development and the growth of self-identity as an engaged learner. As outlined by the framework, it is also important that opportunities are provided - and taken up by students - for learning in all four of the modes highlighted, so as to give opportunities for multiple forms of experience and enable students to develop critical, forward-looking and proactive attitudes for the future.

Student-led

Mode A highlights learning which has a focus on the student's own role in developing the skills of critical analysis.

Curriculum-based and co-curricular activity - the processes of learning and personal skill development predominate, through students' taking responsibility for/ownership of their learning, becoming independent learners. It could be seen to represent those students who are engaged in and respond to challenge, or argument and debate, who interpret ideas in ways not set out by the teacher or those who demonstrate high motivation, for example, who take opportunities for learning from formative assessment and feedback, who are proactive and who want to engage with the many academic development opportunities on offer to further their skills of analysis and critique. This may include activities such as peer assessment, or engaging in team-based or problem-based learning, or taking a leadership role in peer support to develop, and support others in developing, traditional academic skills.

Beyond the curriculum - The student will take opportunities for broad-based learning, engaging in societies, external lectures and other opportunities. Students will be engaged in representation, through their union or Guild and potentially at all levels of an institution. The student 'voice' will be heard and may be acted upon, but the student will engage particularly in analysis and critique of problems, issues and areas for improvement, and will not be actively involved in a vision for the future or in bringing about change.

CRITICAL THINKING:

Students engaged in 'breaking down' ideas - focus on analysis and critique

A
B
DESIGN THINKING:
Students engaged in 'building up' ideas - focus on improvement and change

Mode C tends to represent more traditional, teacher/staff-led approaches to learning, with a traditional focus on analysis and critique, and academic knowledge and skills

Curriculum-based and co-curricular activity - a focus on content and the transmission of subject knowledge and skills can range from approaches where the teacher uses traditional teaching methods and is perceived as the 'fount of all wisdom', to more innovative approaches such as a 'flipped classroom'. but where knowledge acquisition is still strongly controlled by the teacher or the curriculum. Engagement may be seen to relate to features such as attendance or contributing in class. Deep learning, with a strong sense of engagement with the subject, requires cognitive analysis, distilling of ideas and concepts, and a focus on understanding. The style of teaching and the approaches to assessment and feedback can help to encourage or discourage deep engagement, but this is also dependent on student motivations and attitudes. Teacher-led learning can be inspiring and encourage passion for a subject as well as offering a sense of security and a good starting point. Beyond the curriculum - This incorporates optional activity that is strongly guided or recommended by the teacher, such as attending lectures from external speakers, viewing films or exhibitions, etc. It could include knowledge-based co-curricular developments that remain firmly guided by staff.

Mode D focuses on student engagement with change at a theoretical level, or actual change or improvement that is highly managed by the teacher or other staff member.

Mode B reflects where one might expect to see many

institutional activities that currently are labelled Student Engagement, where the focus is on improvement, and

Curriculum-based and co-curricular activity - Design

Thinking can relate to those areas of design where the student is encouraged to work creatively to develop new

products. It can also relate to students as genuine

researchers, or to the creative improvement or co-design or

co-creation of their curriculum or a module and/or

Beyond the curriculum - This includes a multitude of extra-

curricular activities from, for example, Students as Change Agents or Change Makers to Student Fellows or Technology

Champions, and many more. Change may impact on the

students' discipline, learning community, institution or the

external/local community. It will cover forms of partnership

where students lead ideas and action and take genuine

responsibility. It does not mean there is no initial teacher/ staff vision, or no support, but that this is usually as a

response to the student, with a facilitative approach, with

students given the opportunity and freedom to take the

initiative in directions they see fit. Changes may be small or

transformational, changes in attitude, outcomes or ways of

working. Students are proactive and highly engaged; though

not necessarily in large numbers. This quadrant offers the best preparation for employability through the skills gained.

wherein students take a significant role in change.

assessment processes, the way they learn, etc.

Curriculum-based and co-curricular activity - Alongside taking into account the many areas of degree study that may focus on design, such as Design Technology or Product Design, this quadrant highlights the many kinds of active, experiential, practical, problem-solving activity linked to 'building up' ideas, but where processes/outcomes remain controlled or orchestrated by the teacher, or a design exercise only, with no intention for action. Innovative co-curricular activities such as co-design and co-creation may fit here, and other forms of 'partnership' where outcomes remain predominantly guided by staff. Initiatives such as students as researchers might also fit here when there is an intention for change in teaching and learning methods and where student activity is closely managed by staff.

Beyond the curriculum - This could include many aspects of activities that students engage in, such as Volunteering, where students are encouraged to bring about change for the better, but where organisation of such activity is strongly led by others. Student representation would be included if it provides ideas for change but no action.

Teacher/staff-led

Figure 1. Four Modes of Student Engagement

Any model that aims to simplify inevitably loses some of the complexity of real life, so, alongside the discrete modes, the intertwining of interactions between them may also be of interest. For example, a Change Agents project might be used to develop a new buddy or

peer support scheme in a particular discipline. This clearly fits into mode B in the initial stage - it is clearly student-led and focused on change. However, if and as this gets embedded into the normal ways of working within that discipline, it no longer has a focus on change. I suggest it would move into mode A over a period of time. Further, the intention of that scheme might well be to improve activity in mode C. Similarly with curriculum development and delivery: the group which initiates significant changes may be pioneering, but students who follow this new curriculum might fit into modes A, C or D, dependent on the purpose and delivery-style of that module. The purposes of a module might also cover several modes. For example, students might be leading change in technology use in a module through supporting their peers with the use of wikis. A purpose could be to increase independent and group learning skills through technology (modes A and B), but the content remains teacherled and assessment and feedback focus on subject knowledge rather than technology or skills (mode C). Similarly, there may be complex cross-over between student and teacherled activity. If, for example, students ask questions at the end of a lecture, then the focus could be said to move from mode C to mode A, although the main focus is likely to be C.

There are further difficulties with the model. For example, 'Partnership' is problematic in terms of description here; if there is an 'equal' partnership, then it might be conceived as sitting right on the horizontal line moving towards Design Thinking, or even right at the centre of the framework, although there is likely to be a shifting balance between teacher-led and student-led activity (modes B and D); however, the main intention and purpose may be that students are taking responsibility for change, which means that mode B prevails. In terms of 'Change Agents' at Exeter, students very much take on a leadership role (mode B), with support and guidance as needed, but I still see this as a 'partnership' between the Students' Guild, the University and the students.

Despite such difficulties, I am fairly confident that the four modes cover, in some way or other, all the forms of student engagement that I can think of. They highlight what to me are key aspects of higher education learning, both within and beyond the curriculum, and I do not think that any one of these modes is more important than the others. The most traditional forms of education remain focused on mode C – essential but not enough, either for learners or for employers.

However, it is perhaps also important to recognise here that student engagement is something that is personal and individual; it links to the intellectual and cognitive and also to the emotional and motivational aspects of learning; it is about identity and a growing sense of self in the context of higher education. Solomonides (2013) takes the words of Meyer and Land (2005) to suggest that student engagement is a 'liquid' space, simultaneously transforming and being transformed by the learner as he or she moves through it. I like this perspective and the focus on the learner as central. It seems quite possible that students will occupy different modes in the framework in different areas and at different times and may fluidly transition into and out of them all. Each will afford different opportunities for appropriate engagement and may help to build specific skills and understandings. Yet it is evident to me that student engagement does not happen by accident. It is about the multiple and complex learning opportunities and experiences provided by an institution and the quality and variety of the learning and teaching environment.

In terms of the REACT project, and so-called 'hard-to-reach' students (as mentioned in my introduction to this think-piece), the project team is beginning to recognise that this, too, is a complex term. It might well be that different students are 'hard to-reach' in each of the different modes. Some students may feel happiest and engage best with mode C; this may fit best with their expectations for learning and they do not wish, or do not feel comfortable, to go beyond this. Mode A may suit others who like working in groups (or appreciate its importance), building a repertoire of personal and communication skills; D may suit the more creative, the active learners and problem-solvers, not so keen on 'sitting and listening'; B may suit the most confident or committed, those who have enough time, or those who want to impress future employers. Again my personal view is that higher education should be about encouraging students to move beyond their comfort zones, and sometimes limited expectations.

It is also important to recognise that the term 'Student Engagement' needs to be connected to a vision both for higher education in general and for each university individually. It is then the translation of that vision into practice which is crucial, so that it is a vision which is shared across an institution and, in the words of Brand *et al* (2013), becomes the 'institutional state of mind'. As the concept of partnership and of student engagement in innovation and change is increasingly emphasised nationally, mode B (student-led Design Thinking) reflects the kinds of new or innovative activity that many institutions are seeking to embed, often with considerable difficulty and without, as yet, a shared 'state of mind'. Giving students agency is not a difficult step, but it requires trust from an institution and the recognition that students understand their learning environment as well as anybody and will be responsible in making appropriate, and often exciting and creative, changes. The empowerment of students has to be a deliberate aspect of a vision of higher education. However, I believe that all four modes of engagement should be explicitly integrated into that vision, enabling students to grow as knowledgeable, critical, flexible and creative thinkers, as well as the change agents of the future.

I am not sure yet to what extent the framework provided by Figure 1, alongside the concept of Design Thinking, provides a helpful addition to our repertoire of understandings about student engagement (and I have no doubt that the descriptors will need refinement), but if this model can help to give any insights or raise issues for discussion - whatever its faults - then its purpose will have been servedⁱⁱⁱ.

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ⁱ Students as Change Agents, University of Exeter

^{II} REACT: Realising Engagement through Active Culture Transformation, University of Winchester, in collaboration with the University of Exeter and London Metropolitan University

http://www.studentengagement.ac.uk/

iii I would like to thank all those who have been willing to discuss the descriptors with me during the past week and I welcome any further discussions and critique