Flipping the Academy?: How the Recognition of Experiential Learning

is Turning the University Inside Out

Abstract

Universities, traditionally established for the transmission of knowledge and the awarding of degrees, are increasingly required to recognise non-formal learning, whether gained through the workplace, self-driven learning (such as via Massive Open Online Courses (MOOCs)), or social activity. The concept of *flipping* the classroom is growing, encouraging autonomous rather than dependent learners by altering the traditional teaching pattern. This literally requires changes in the order of delivery, however the bigger picture represents philosophical challenges to the status of the university itself. *Flipping* requires universities to acknowledge the learning taking place outside the classroom because that is where some students undertake the majority of their learning activities. However, there are obvious and interesting comparisons with the wider world of the workplace, as a different but equal producer and disseminator of knowledge, and subsequently the home of different, but equal, types of students. University students, whether full or part time, are increasingly juggling the demands of working and learning. Learning derived from the workplace, as opposed to the classroom, is viewed as a relatively new, and often marginalised, area of university level study, requiring further research and attention. There is undoubtedly a continuum of experiential learning, such as work-based learning; cooperative and work integrated learning; student placements; graduate internships and more. To make some formative connections between the learning taking place through work, and via flipped learning, a small-scale research study was undertaken across two UK universities. This paper's discussion of the increased recognition of experiential learning is contextualised by the study's findings.

Introduction

Universities are increasingly required to recognise self-driven learning, gained through the workplace or social activity. This non-formal learning often comes from experience, such as in the workplace; however the concept of *flipping* the classroom is also growing, which similarly encourages autonomous (rather than dependent) learners, most obviously by altering the traditional teaching pattern. Flipping (like work-based learning) requires changes in the order of delivery, and larger philosophical challenges to the status and nature of the university itself. Flipping (again, like work-based learning) requires universities to acknowledge learning taking place outside of the classroom, because that is where some students undertake the majority of their learning activities. Increasingly, university students are juggling the demands of working and learning. There is a continuum of experiential learning, covering work-based learning; cooperative and work integrated learning; student placements; graduate internships; observation of practice and simulated experience. To make some formative connections between the learning taking place through work, and that taking place through flipped learning, a small-scale research study was undertaken by two UK universities to begin to investigate the recognition of experiential learning, and the multiple places in which it can take place other than the classroom.

The idea of a university

Universities have operated as, "a place of *teaching* universal *knowledge*" (Newman,1899, p. iii) since the eleventh century. The moves to mass and universal higher education in many parts of the world in the last fifty years, however, have challenged this *ivory tower* image, resulting in a much more diverse student and staff body (Trow 2005). Furthermore, rapid technological development has vastly enhanced the potential of learning, teaching and communication methods and strategies, and raised questions about how knowledge itself is created, accessed and disseminated. As Siemens (2006, p. 69) observed,

"The changing nature and context of knowledge influences everything: scholarship, teaching, research, corporate structure, leadership, and marketing."

The rising costs of higher education encourage a growing culture of students as discerning consumers, who rightfully expect relevance and usefulness from their university education. There is a growing focus on *employability*, together with a drive for interaction with the world of work outside of the university. There is growing evidence that all students benefit from access to some kind of workplace learning experience, "the HE experience should be a holistic one, embracing the widely varying contexts in which knowledge is produced, gained built upon and used…" (Helyer 2011).

Where well-established mechanisms such as work placements, *sandwich* years, and internships have been attached to a relatively small percentage of courses, there is now interest in finding ways of broadening out such opportunities to the majority of the student population. There is a growing acknowledgement that there are other higher level study options, such as Higher Apprenticeships in England and Wales, which can now provide a pathway through to an employment-based Master's degree. This is led by an increased demand from industry for higher education for employees, which takes more account of learning inside and outside the workplace, including use of online learning to lessen the need for costly personal attendance.

These elements represent considerable disruption for the traditional university model, and a fundamental challenge to their accepted ways of working, in which the university classroom is central (Conole, 2013). Whilst what is learned in the classroom may be taken out to the workplace, the concept that knowledge and learning can be primarily *developed* in the workplace, and then applied in the classroom are less well accepted, outside certain applied and well-integrated discipline areas (for example, fields related to health).

Informal learning

Non-formal and self-driven learning similarly challenge the status quo of the traditional university model. Individuals undertake a variety of experiential learning activities in the course of working, social and personal lives. Lifelong or life-wide learning is gained from the experience of actually undertaking activities or tasks; this is learning from 'doing', which is rarely connected to a formal course or programme of learning. Stephen Billet (2011) writes about the power of this *experiential learning*, and reiterates that as a term it encompasses the wider application of workplace learning to include work-based learning, co-operative learning, work integrated learning, internships and work placements, but also observation of practice and simulated experience. Non-formal learning like this is less readily recognised in terms of equivalence with university learning, including the awarding of university credit, but it is not informal in the way that it is casual; it may be connected to very serious and sophisticated parts of individual's jobs and occupations. Indeed, informal learning is ubiquitous in the workplace. Matthews (2013, p. 4) observes, however,

> Until very recently, informal learning was under the radar as far as Learning and Development (L&D) professionals were concerned. While university scholars were busy researching and arguing over the definitions of informal learning, L&D professionals in organizations were focussed on formal learning. Their efforts were primarily channelled into providing formal training programmes to meet the needs of their organization's employees.

There has been an increase in international research on this topic and a rise in programmes of study centring on or including work-based learning. These are alongside a sharpened focus, due in part to a global recession, on employability of graduates and the seismic effect workplace experience has on this. The greater recognition of the value of experiential

learning and the fact that learning does not solely take place within a classroom, has led to changes,

> Informal learning is a significant aspect of our learning experience. Formal education no longer comprises the majority of our learning. Learning now occurs in a variety of ways – through communities of practice, personal networks, and through completion of work-related tasks. Learning is a continual process, lasting for a lifetime. Learning and work related activities are no longer separate (Siemens, 2005, p. 2).

Acknowledging that learning occurs in places other than the classroom could seem threatening to teaching professionals, especially if more established methods of teaching are bound up with personal identity issues. Referring to the launch of another opportunity for informal learning, TED-Ed, Johnston (2012) summarises,

> Faculty are likely to struggle finding their place in this new paradigm. With the increasing availability of lecture content, many will need to bring more value to the educational experience in other ways. Educators can be content creators, content consumers, or both (…) we are likely to see a smaller number of high-profile faculty providing content to a larger audience than in the past.

Reminiscent of Roland Barthes' cultural theories around the "death of the author" in which the text and its reader are prioritised over the producer of the text, experiential learning makes the activity leading to the learning central. The learning has to come into being through activity and *doing*, rather than via a *teacher* role, in a system where knowledge can be parcelled up and passed on. The teacher becomes a facilitator, helping students to work through, make sense of, and build upon what they are learning.

Linked to experiential learning and the *flipped classroom* concept, is the growth of Massive Open Online Courses (MOOCs). While space precludes a detailed discussion of

these, they also pose a challenge to the (formerly) accepted order of university education and thus they link to the hypothesis of this paper.

The small-scale research project presented in this paper aimed to initiate an exploration into what experiential learning means to university colleagues; both how they were interpreting, and using, the notion. From this, we will return to our hypothesis that the growing demand for varying types of experiential learning, and the diversity of ways in which learning can be accessed and facilitated, is contributing to the conventional world of the university being "turned upside down".

Research Methodology

The project employed both quantitative and qualitative methods. After desk research, an online survey was used to obtain an overview of the understanding and application of experiential learning, the *flipped* classroom, delivering MOOCs, and key influencers of change to university curriculum. Responses (43) were collected from a cross-section of teaching and professional staff involved in working with work-based learning students and/or the HE business-facing agenda, across the two UK universities. The survey contained both open and closed questions to collect data on three variables: opinion; behaviour; and attributes. The questions were developed by drawing on previous research studies in order to identify areas where information is lacking. The survey was initially piloted to determine its clarity and effectiveness, and revised as necessary.

A purposive sampling technique was used to disseminate the survey. In each university, participants were selected from a range of backgrounds and specialisms to facilitate access to diversity, and analysis of a wide range of issues in relation to HE level work-based and experiential learning. Similarities or variation between, and within, subjects,

programmes and institutions was captured (although drilling down into this detail meaningfully will require further work).

The second phase of the research used semi-structured interviews with 10% of the respondents in order to build upon the themes uncovered and obtain more in-depth and nuanced data. Research participants were recruited from the contact information they provided on the survey. Interviews were transcribed. Participants were offered the opportunity to verify the accuracy of their contribution.

The qualitative data gathered was exported via a .csv file and analysed against a literature informed framework. Quantitative responses were interrogated using electronic statistical analysis and used to evaluate the hypothesis posed in the paper's title.

Discussion

The project aimed to explore meanings, interpretations and applications of experiential learning, using questions about experiential learning, the flipped classroom, MOOCs and curriculum change in higher education.

Experiential Learning

Figure 1: What is experiential learning?

Figure 1 reports responses to the question "What is experiential learning?" Most responses firmly connect experiential learning to *doing*, reinforcing the term's allegiance with work-based learning and the *flipping* style of delivery. The second largest response, "work-place experience" reiterates experiential learning's strong associations with work, tied some of the other responses around reflecting and looking back. Detailed responses ranged from, "All learning derived from experience, distinct from, but not excluding formal teaching and learning. Maybe self-study, work experience, life experience", to, "I have not heard this specific phrase before, is it: Learning in a more creative, exploratory way?". Some respondents tied learning outcome and process together with *relevance*, "a process of knowledge acquisition that involves practical experience directly relevant to the learning content", and many referred to the 'reality' of the situation, "This must happen in the 'real world', not an academic/learning environment".

Asking "How can experiential learning be integrated into students' learning experience" brought the following answers:
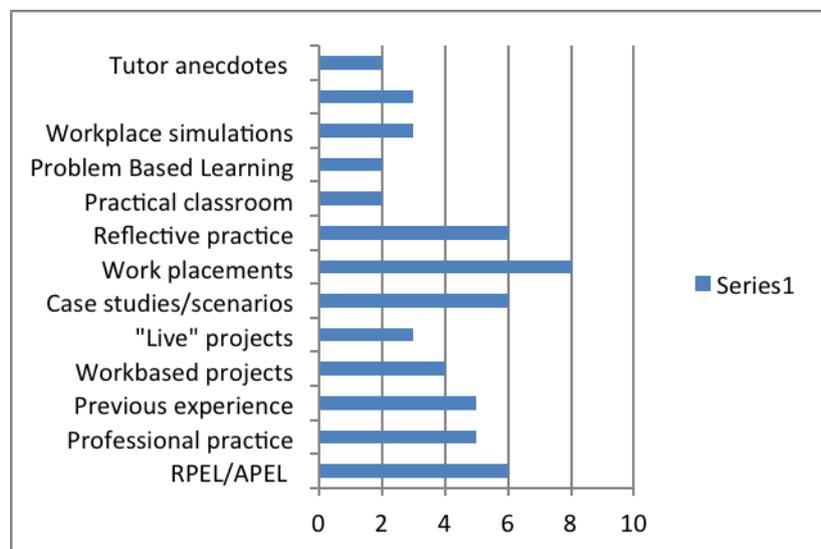

Figure 2: Integration of experiential learning into academic programme

Again, "looking back" and "reflecting" were dominant answers; many HE courses can only acknowledge experiential learning, retrospectively, calibrating it against existing programme outcomes and descriptors to judge whether or not it is credit-worthy, "Appropriate learning acquired through experiences outside formal educational settings which is assessed (after the fact) and given credit" (respondent).

A popular alternative is the work-placement, "Opportunities built into curriculum by design". Students are sent to a pre-arranged placement opportunity, usually with an organisation that has an established relationship with the university. Whilst this represents a real workplace opportunity to the student it is also a controlled situation. Genuine work-based experience is harder to arrange and monitor; the majority of respondents were striving to offer some multiplicity, "placements, live projects, simulations, case studies, real work scenarios, practical labs". (Figure 3)
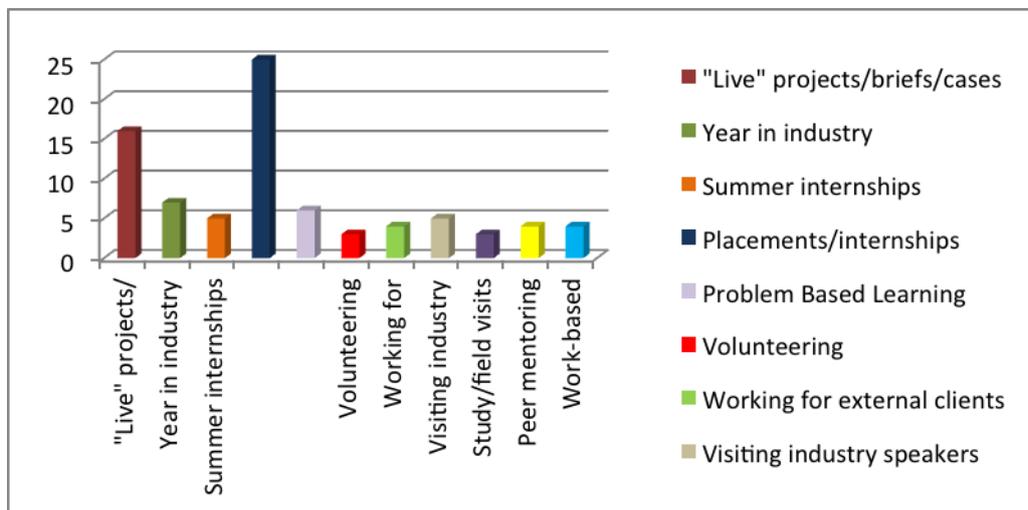

Figure 3: Range of workplace opportunity introduced into academic programmes

Flipping

The concept of *flipping* the classroom is not new, but interest is growing. 47% of survey respondents knew the term, with 56% of them (14 colleagues) having tried the idea in their own teaching practice. Based on a theoretical framework articulated in 2007 by Bergman and Sams (2012); the flipped paradigm inverts the traditional approach of formal

tuition followed by private study. Instruction is delivered online, before class, with class time used for discussion or activities drawing on and progressing the prior learning. Colleagues identify early applications,

> In the 1980s I translated the introductory chemistry course for science students into a workbook, dispensed with lectures, and spent my time with individual students or groups working on problems - an early example of the *flipped classroom* in operation. (Educational developer, University of Bedfordshire).

> I adopted this approach with my teaching at Leeds University in the 1990s. Most of the information for the modules was available on an early virtual learning environment - VLE (…) the contact time was spent going through examples of questions and testing the knowledge gained by students. Evaluation was positive once the shock of having to participate in lecture time was overcome! This approached works well with small to medium sized cohorts. I provide lecture notes and instructions in Livescribe and some notes and lectures on You Tube (Survey Respondent, Teesside University).

The usual order of things is challenged and learning becomes usefully non-linear. Flipping is then a disruptive (but potentially democratising) mechanism. It requires the university to re-think the extent and nature of learning undertaken outside the classroom and the role of the university teacher. As Waid (2013) argues,

> I think we still cling to the false belief that the teacher has some innate knowledge that students can't get anywhere but from them…everything a student wants to know is already on the internet. The teacher must stop thinking of her/himself as the giver of knowledge. What the teacher needs to focus on is …how to get the students to use the information they've learned in ways that are conducive to more learning.

Table 1 demonstrates the strong parallels between work-based and experiential learning.

• Hybrid, flexible and multi-faceted; more likely to be individually relevant
• Non-linear; activities and learning are accepted as not coming in any neat order
• Potentially more cost-effective than giving large lectures in big buildings, a good deal is achieved online, in the workplace and in other off-campus venues
• Capable of encompassing many learning styles and attract under-served potential students (widening participation)
• Valuing and prioritising active learning, 'learning and doing cannot be separated and therefore to use knowledge to its fullest potential it must be implemented, performed and enhanced as part of a synergy' (Helyer, 2010, p. 21).
• Accepting that what is being 'learned' happens elsewhere and can be usefully worked through in class
• Offering mentorship and facilitation – the student is not totally alone
• Generating what Boud and Solomon (2011, p. 47) coined a *learner-centred approach*.

Table 1: parallels between work-based and experiential learning

One survey respondent compared the two,

> ….work-based learners have already got a good deal of knowledge and expertise, so could be seen to be disrupting the 'correct order of things', they don't sit in the classroom like empty vessels - they bring learning with them and the tutor facilitates the articulation, and if appropriate, accreditation of this learning; similarly 'flipping' might send students away to learn /study away from the class then return to the class to discuss what they have found out/know - rather than the teacher 'teaching' them something - it is a more active and iterative process

Respondents could see the potential of flipping, but have fears and misgivings,

> Yes, I tried this a long time ago, I encountered two related problems - the students still saw lectures as the real essence of teaching and learning (and so I confess did I). I am a much more didactic teacher than I really should be and I have always found it hard to let go of this (Survey respondent, 2014).

And,

> Although we are promoting the use of dialogic, transactional, conversational approaches (…) and using Guided Learning to pre-load students with content via

online structured, scaffolded learning blocks, online reading material, video, audio

etc. most academics still find it a huge challenge to let go of what they are

comfortable with (Survey respondent, 2014).

MOOCs

MOOCs rely, even more than flipped and work-based learning, on motivated and self-

driven students, by further challenging concepts of experiential and prior learning with

suggestions of constant, all encompassing learning processes:

When looking at the shift in learning which is happening as a result of the rise in

social media, ubiquitous cloud computing, and new technologies, a MOOC

complements all these changes… (de Waard et al., 2011, p. 18).

Only 7% of survey respondents had experience of MOOCS (3). Despite initial fears that

MOOCs may render more traditional delivery redundant, current literature suggests that this

may not be the case (Daniel, 2012). MOOCs offer an interesting and potentially valuable

alternative to NOT attending university, rather than an alternative to attending, and will

probably attract a different cohort, along with students using the freely available content in a

supplemental way. MOOCs do not suit every learner and as yet most do not carry academic

credit and so are less attractive to students aiming to achieve a certificated award. Their great

attraction is that they are genuinely open and free to the user, but this policy could change.

Respondents quoted their students' reactions, ranging from "confusing" and "remote" to

"they keep asking for more content, I can't keep up!"

The survey's final question focused on curriculum change, with respondents feeling

that the largest impact in recent years came from the increasing focus on employability,

followed by relevancy to the workplace. These changes link to an increased need for
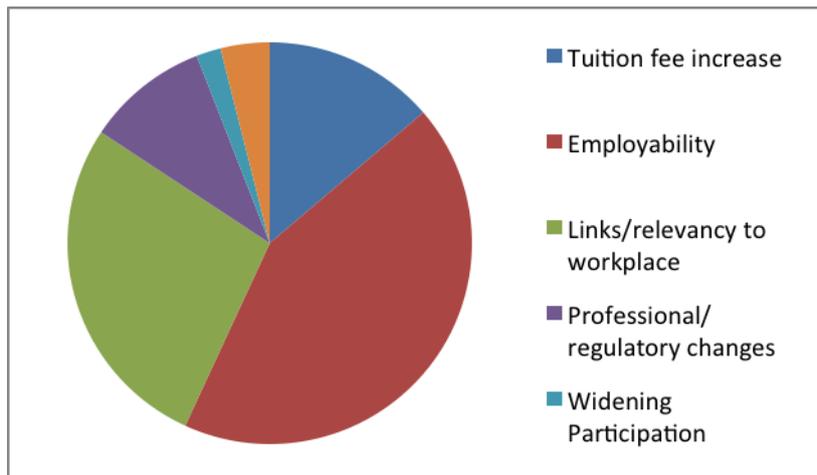
innovative delivery mechanisms.

Figure 4: Factors influencing curriculum change

Conclusion

Whilst small research projects have limited time and resources, the data gathered confirms the need to investigate this subject further. The diversity in the translation of terminology was very apparent, with many respondents associating experiential learning only with the past, and looking back, rather than its potential to be dynamic, current and on-going. At present, it may seem therefore that the university is not quite yet being turned "inside out".

References

Bergman, J., & Sams, A. (2012). *Flip Your Classroom: Reach Every Student in Every Class Every Day*. Washington DC: ISTE ASCD.

Billett, S. (2011). *Curriculum and pedagogic cases for effectively integrating practice-based experiences*, Sydney: Australian Learning and Teaching Council.

Boud, D. (2001) *Work-based Learning: A New Higher Education?*, Buckingham: Society for Research into Higher Education and Open University Press.

Conole, G. (2013). MOOCs as disruptive technologies: strategies for enhancing the learner experience and quality of MOOCs. *Revista de Educación a Distancia*, *39*.

Daniel, J. (2012). Making sense of MOOCs: Musings in a maze of myth, paradox and possibility. *Journal of Interactive Media in Education. Retrieved from* http://jime.open.ac.uk/2012/18

de Waard, I., Abajian, S., Gallagher, M., Hogue, R., Keskin, N., Koutropoulos, A. Rodriguez, O. (2011). Using mLearning and MOOCs to understand chaos, emergence, and complexity in education. *The International Review of Research in Open and Distance Learning*, 12 (7). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1046/2026

Helyer, R. (2010). *The Work-Based Learning Student Handbook*. Basingstoke: Palgrave Macmillan.

Helyer, R. (2011). 'Aligning higher education with the world of work', *Higher Education, Skills and Work-based Learning, 1* (2), 95-105,

Johnson, K. (2013). Innovation Insights. *Wired*, 3 December 2013. New York, NY: Condé Nast. Retrieved from http://www.wired.com/insights/2012/03/flipped-classrooms/

Matthews, P. (2013). *Informal learning at work.* Milton Keynes, UK: Three Faces.

Newman, J.H. (1899; 1996). *The idea of a university*. New Haven, CT: Yale University Press

Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning, 2* (1). Retrieved from http://www.itdl.org/journal/jan_05/article01.htm

Siemens, G. (2006). *Knowing knowledge*. Marston Gate, UK: Amazon.

Trow, M. (2005). Reflections on the Transition from Elite to Mass to Universal Access, In P. Altbach (Ed.), *International Handbook of Higher Education*. Norwell, MA: Kluwer.

Waid, A. (2013). *Education Infographics*, September 9 2013. Retrieved from http://www.knewton.com/flipped-classroom/