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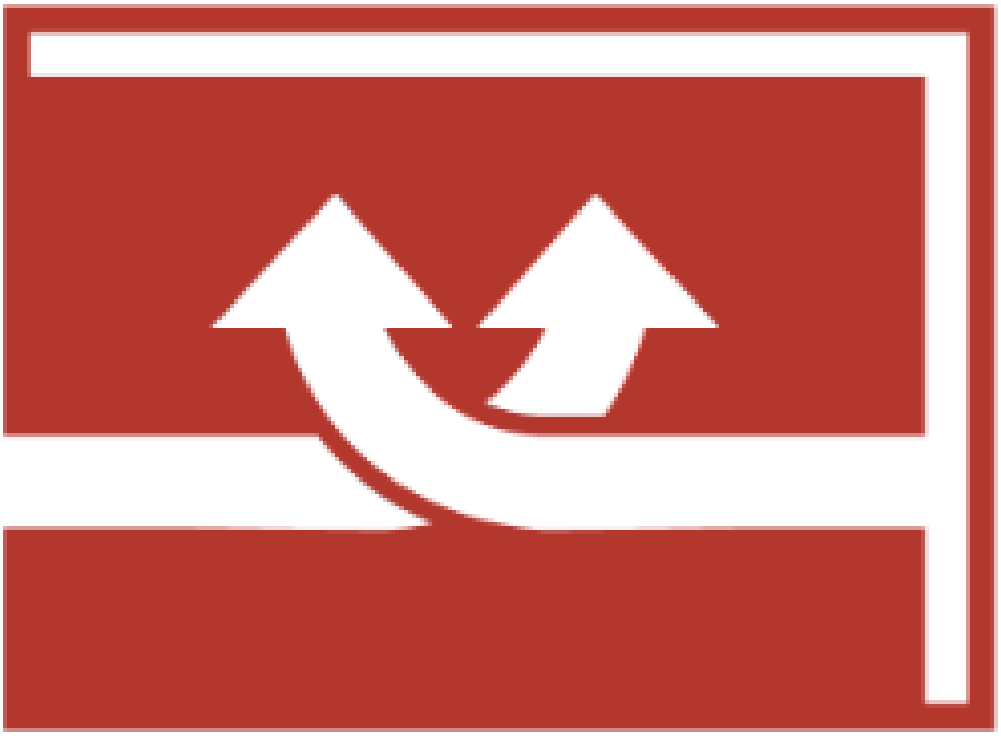

Rapport

The International Journal for **R**ecording **A**chievement, **P**lanning and **Port**folios.

The Journal of the Centre for Recording Achievement.

Volume 2 Issue 1
April 2017

CRA CENTRE FOR RECORDING ACHIEVEMENT
WWW.RECORDINGACHIEVEMENT.AC.UK
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Issue 1 (2017)

The International Journal for Recording Achievement, Planning and Portfolios

Welcome to the second edition of RAPPORT!

The aims and scope of this new Journal are, in the related fields of recording achievement, e-portfolio technology/practice and personal development practice, to:

1. disseminate globally and promote high-quality research;
2. be a prime source of developing knowledge;
3. facilitate the sharing of rigorously evaluated and innovative practice;
4. provide an outlet for, and occasionally commission, challenging personal and professional perspectives across educational sectors.
5. disseminate globally and promote high-quality research;
6. be a prime source of developing knowledge.

The journal aims to share international thinking and practice around the topics of recording, reviewing and reflecting on achievement in learning, personal development and employment; action planning for learning and development; e-portfolio and related technologies to support and enhance learning, achievement and the development of personal identity.

Articles will be considered for publication under three headings:

- Research papers (3-6000 words): original research on any aspect of our understanding of personal development and/or e-portfolio practices;
- Scholarly and critical reviews of implementations/development work: case studies/evaluation reports (1500-3000 words):;
- Opinion/thought pieces (1-4000 words): speculative or challenging discussion of new ways of working, approaches, interpretations or analysis.

In keeping with CRA values and practices, a special feature of this journal is the desire to encourage practitioners who have not previously published their work. Contributors may submit an idea or early draft and request help in developing this into a publishable article. Suitable submissions will result in the assignment of a mentor from the editorial board to that individual for a specified period.

Proposals or ideas/drafts should be submitted in the first instance to the co-ordinating editor, Dr Janet Strivens, at janet@recordingachievement.org

Issue 1 (2017)

The International Journal for Recording Achievement, Planning and Portfolios

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Eportfolio is a Big Word: The Meta Cognitive Space of Eportfolio

A personal perspective

Trent Batson, AAEEBL

During 15 years of working within the eportfolio community – at the University of Rhode Island, on the Board of the Mellon Foundation-funded Open Source Portfolio Initiative (OSP became part of Sakai), and then founder and president of The Association for Authentic, Experiential and Evidence-Based Learning from 2009 to 2016 – and, as I wrote dozens of published articles about eportfolio and numerous "Batson Blogs" for AAEEBL during those same years – I have reviewed my own view of "eportfolio" constantly.

I evolved in my own thinking about eportfolio from first seeing it primarily as a technology application that elicits good practices for student development to now seeing eportfolio (the technology AND the theory) as a direction-setter for how information technology in higher education, used perceptively, can re-form HE globally. Eportfolio, as it is being best used as a high-impact practice, is a learning-design model for the current era.

The Many Understandings of "Eportfolio"

I have boiled down this evolution in my thinking to this question: Is "eportfolio" a small or big word? Does it refer to one specific function within higher education or does it apply across a spectrum of uses? Or is it even a bigger word than that?

- The term "eportfolio" to many in global higher education may mean assessment at the course level. It therefore might suggest using eportfolio technology to collect student assignments in one place, digitally, making the job of reviewing student work easier.
- To others, "eportfolio" may mean a web site that can help a student get a job through showcasing the student's record of achievement.
- Or, it may mean a way to track student progress toward learning outcomes for institutional purposes (in the U. S., this use is in response to the "accountability" movement).
- To others, "eportfolio" is a way to enrich advising.
- And, to others, "eportfolio" means using the eportfolio "space" to improve learning.

The classic trope of the many views of an elephant – blind men and an elephant – applies directly to the many understandings of "eportfolio" in global higher education.

The Elephant in the Room

Each of the meanings brings to mind an important function in higher education, but each meaning also misses the most important and powerful significance of "eportfolio." Taken together, these meanings do in fact miss the elephant in the room. The "elephant," or, more literally, the profound significance of eportfolio is this: eportfolio, broadly speaking, is a concept to re-imagine learning in this millennium.

Eportfolio is the metacognitive pace created by eportfolio technology, and designed according to eportfolio theory. This space is where all thinking about learning and how best to encourage learning should start.

Eportfolio theory starts with the assumption that students/learners need to own their own learning, literally and figuratively, in order to be engaged and to therefore develop their own learning process. Learners need to research their own learning over time, as a continuous and evolving process, regularly reframing their understanding of that process and of their accumulating learning through reflection and integration.

Higher education, as a business (predominantly so in the U. S.), provides a range of necessary services but primarily is supposed to advance learning in a society. At the core of learning is the ability to find meaning in experience and apply that meaning to new experiences. The "experience" can be exposure to "content" but can and does, naturally, include not only formal but informal learning experiences, both monitored and un-monitored. Learning is not confined to a classroom. Learning evidence, therefore, needs to be drawn from life inside and outside the classroom.

Capturing pertinent and revealing evidence of learning experiences over time in a digital space accessible on the web and then reflecting on that evidence is the eportfolio process. Integrating meanings from this process of reflection helps develop the metacognitive habits of mind that are the core value of higher education.

No matter what discipline or field one chooses to study, the ability to continue to learn in that field or any field is the most essential learning outcome of formal education: one does not aim only to memorize content but, more importantly, to develop the ability to create one's own content. Aiming to master the means of knowledge creation is the goal.

Eportfolio as a Small Word

The danger to the eportfolio idea has consistently been selling the idea short. With technologies, the temptation is always to use IT's ability to merely increase the efficiency of current practice but, at the same time, avoid using IT's larger ability to implement new practices. If "eportfolio" refers merely to a repository of student work – an online filing system that can be used by institutions for reporting or by employers as an enhanced resume – then it is a small word.

With eportfolio, this temptation results in the spread of assessment management systems called "eportfolio," or resume systems called "eportfolio," or the view of eportfolio as only development of identity (development of a digital identity is important but development of one's identity as a learner is more important) or other narrower uses or views of the technology's promise. The danger is thinking of "eportfolio" as a small word and not a big word.

The danger is missing the all-encompassing eportfolio concept: a means for learners in this age to be able to create knowledge at the scale, depth, pace and nature that is appropriate, usable, and necessary.

Eportfolio as a Big Word

Eportfolio is not only a big idea, but is "big" in the sense of its spread in higher education. EDUCAUSE, the largest association representing the technology establishment in U. S. higher education, through its ECAR project, conducts an annual global survey of undergraduates and information technology. That survey has shown the spread of eportfolio technology in higher education around the world since 2010. From one perspective, the survey results suggest it would be hard to find too many institutions among the 20,000 plus institutions of higher education in the world that do not have an eportfolio implementation somewhere within the institution. A growing percentage of institutions – though still less than 20% -- use eportfolios in all, or almost all, courses.
The survey also suggests that most users – faculty and students – believe they could use eportfolios better if they were trained or enlightened in some way.

Eportfolio as an idea, as a movement, as a field and community of practice, is also involved with credentialing. Including micro-credentials such as badges adds a fascinating element (badges can be granted by peers on a project, for example) to eportfolio as a basis for credentialing. The move to electronic transcripts, because they can include links to eportfolios, is another indication of how ensconced eportfolios are in higher education.

Eportfolio Practice: Students Researching Their Own Learning

In the metacognitive space of eportfolio, students study their own learning. I use "study" to indicate a research project. In a research project, one gathers data that will show something through its analysis. How do students learn how to devise a "research design" (to complete an assignment or a collaborative projects, etc.) that will produce evidence that is later useful to prove a point? In other words, how do students learn to become researchers of their own learning?

The research process is not simple – it is not just writing about a learning experience. One does not go to, say, a shoreline where you are studying effects of climate change on a local ecology, and just write an essay. We can recognize the failing of that simplistic research design.

Good eportfolio practice would involve knowing what evidence to collect for each purpose. What can I learn later from this experience if I collect the right evidence? What can I demonstrate if I collect the right evidence? And what can I collect that will show the process of solving a

problem during the experience? How can I show what my learning process is?

Students need training in how to do a research study. An eportfolio can't be a metacognitive learning space if the evidence available in that space is paltry or unrevealing. It can't be a metacognitive learning space if the assignment Structure does not lead to good evidence-collecting.

"Reflection" in good eportfolio assignments is embedded in the assignment: in order to complete the assignment, students must reflect (reflection is a thought process). "Reflection" is not an add-on later, or only an add-on later (in response to a prompt) – the notion of reflection as primarily an essay in response to a prompt is again making eportfolio into a small word.

The Cultural Importance of the Eportfolio Idea

In a time when cultural consensus is dissipating, and truth is in dispute, learning how to use evidence to make an argument is an invaluable corrective. Higher education cannot sit back and allow the notion of "truth" to be lost. One kind of truth vital to society is empirical truth. Students must learn what "empirical" means and learn how to conduct an empirical study of their own work. We must graduate students who know the difference between empirical truth and opinion. Using eportfolio in the big-word manner is a core way for students to learn this crucial distinction. The political process often works against empirical truth; advertising sometimes works against empirical truth. Other forces and groups in society champion their own versions of fact and truth. The web offers a thousand variations on the truth of core beliefs. Does the centre hold?

Higher education must help students know how to find truths and truth. Higher education must sustain core knowledge and knowledge processes in a society to keep society healthy.

Eportfolio as a big idea harnesses the power of the new knowledge ecology in our global culture and is a way to address the dissipation of consensus.

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Issue 1 (2017)

The International Journal for Recording Achievement, Planning and Portfolios

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The potential role of ePortfolios in the Teaching Excellence Framework

Alfredo Gaitán and Diana Pritchard, University of Bedfordshire

Current debates on HE policy in the UK are dominated by the evolving Teaching Excellence Framework (TEF) which will soon involve the government establishing key metrics. In this context, and seizing this valuable moment in policy formation, we here provide a brief foray into the multiple aspects of 'teaching excellence' (TE) as a basis to highlight both the complexity of identifying ways to measure it and the shortcomings of existing official developments. In the absence of a clear conceptual understanding of the learning processes and the role of teaching underpinning the TEF, we present a model of the learning process to which the indicators currently proposed by the authorities can be related. We propose that ePortfolios can play a special role in the TEF in capturing the qualitative outcomes of learning processes which, importantly, reflect the student perspective in terms of goals, learning experiences and achievement. These are both crucial yet missing elements of the proposals to date. Finally, we provide some examples of how information from ePortfolios could be used by HE institutions to enhance their institutional submissions to the TEF.

The policy context of the TEF.

In September 2015, Jo Johnson, the Minister for Universities and Science, announced the government's plans to introduce changes in the higher education (HE) system 'to ensure that higher education continues to be a great national success story in the years to come' (Johnson, 2015). This made clear that widening participation in HE, as a means of achieving greater social mobility, is just as important as opening the HE system to competition so that new 'providers' can compete with existing universities. These changes relate to earlier attempts in 2011 (Department of Business, Innovation and Skills [BIS], 2011a and 2011b) which included a wide set of actions aimed at addressing the finances of HE, improving the quality of information available to students about the courses on offer and 'removing barriers to entry to the higher education sector'.

In the mist of these apparently diverse aims, the minister also emphasised the importance of maintaining 'great teaching, combined with rigorous assessment, useful feedback and preparation for the world of work'. He described the creation of the 'Teaching Excellence Framework' (TEF) as the means of recognising and rewarding teaching that 'has been allowed to become something of a poor cousin to research in parts of our system'.

Events moved rapidly. In September of 2015, the House of Commons Business, Innovation and Skills Committee launched the Inquiry 'Assessing Quality in Higher Education', although a Green Paper1 was subsequently published by the Government in November of 2015 (BIS, 2015), before the publication of the report of in February 2016 (House of Commons Business, Innovation and Skills Committee [HoCBISC], 2016). Then, in May 2016, a White Paper was published (BIS, 2016a) , followed by the launch of a Technical Consultation which closed in July (BIS, 2016b), at the time of writing this paper.

The HE system (its 'architecture') aimed at opening up the market to new 'providers' and

[1] *In the process of creating legislation in the UK the Government first produces what is called a 'Green Paper' which will contain a description of an issue and a proposal on what to do about it. This is widely circulated and then a 'White Paper' will follow with a firmer statement of the government's intentions. If the Government sees fit, experts will draft a 'bill'. In order for the bill to become law, it must be debated and approved by both the House of Commons and the House of Lords.*

increase competition 2 . An analysis of the ideological underpinnings of these policies is merited, but for now our shorthand guide to the reader is to suggest that, in accordance with this official view of higher education, the TEF can be a tool to provide students (customers), employers (stakeholders) and the government (regulator) with the information each needs to make choices (to buy, to invest or to set the basic rules), akin to the need for the prices of commodities to be constantly on view at the Stock Exchange. The TEF will also be the mechanism by which the quality of teaching can be linked to the funding of institutions (ratings will be used to authorise increases in fees) and the Government even foresees, as a natural occurrence, that some institutions may have their courses closed down or that they may even exit the system (BIS, 2016a, p. 10). The proposed timetable (see table 1 below) suggests that HE in the UK must move quickly to define their institutional response to these rapidly implemented changes.

Table 1: Brief summary of the proposed timeline of implementation, according to the White Paper (BIS, 2016a).

Year 1 (2016/17):	All providers with a successful QAA[1] award -> 'Meets expectations'.
Y2 (2017/18):	Trial year. Voluntary applications. Assessments at institutional level.
Y3 (2018/19):	Assessment at institutional level and pilots at subject level.
Y4 (2019/20)	Assessments at subject level.

Whereas the White Paper (BIS, 2016a) acknowledges that measuring teaching excellence is a difficult issue and includes three areas namely (a) teaching itself, (b) the environment, and (c) the outcomes, the Green Paper had specified the following metrics and indicated some of the sources that would be used to measure these: student satisfaction (National Student Survey), retention (collated by the Higher Education Statistics Agency), employment /destination (Destination of Leavers of Higher Education Survey), teaching intensity and engagement with study, and learning gain (no specific sources were identified for these metrics).

The Government makes an important admission in recognising the complexity of identifying meaningful indicators, by stating that the metrics are mostly proxies. It also nods to the importance of a 'qualitative element' which will contain additional evidence offering institutions the opportunity to present additional information to contextualise the quantitative metrics of teaching excellence.

We consider that the TEF, and the reform of HE of which it is part, do not contain a clear definition of teaching excellence nor is it based by a clear conceptual understanding of what teaching and learning are all about. Valid evaluative judgements about the proposed metrics can be made once greater clarity about the notion of teaching quality and the process of leaching and learning has been reached.

Defining Teaching Excellence

Although there have been several attempts to bring clarity to the notion of TE (e.g. Chickering & Gamson, 1999: Gibbs, 2010), we believe, with Gunn and Fiske (2013), that there is still a lack sophistication in how TE is conceptualised.

Therefore, in this paper we would like to go back to basics and start by defining TE. We would to

[2] *In the UK, the vast majority of universities are entirely funded by the state (i.e. tuition fees are subsidised by the Government). There are only five private universities.*

like to propose that TE occurs in an institution when individual teaching practices are judged to be (a) aligned to the clear purposes, (b) are effective in achieving their goals, and (c) are regularly revised and improved.

The first element refers to the alignment that must exist between individual teaching practices /activities and shared goals (e.g. learning objectives), which in turn relate to the institutional mission, that has to various degrees the students' needs at the forefront (Biggs, 1999). Verification of congruence (practices to goals) and also coherence (goals to mission) are routinely carried out during reviews or audits, mostly as paper-based exercises, but can include observations of practice. Here, the picture that comes to mind is that of a system that does what it is meant to do because each of its components behaves as expected. Perhaps a high-quality clockwork mechanism is an appropriate metaphor.

A second element refers to effectiveness/impact of an institution, department or an individual tutor. In one sense, this may be understood to be fulfilled where practices are applied which achieve the goals proposed. Beyond the existence of practices designed to deliver the specified goals, this requires that the practices actually produce the intended results. Likewise, effectiveness, in a second sense, can refer to situations where practices are adapted to ensure that they achieve the goals, entailing monitoring and readiness to modify practices where it is deemed necessary.

A third important element of excellence is critical engagement. This refers to a commitment to continuous improvement on the part of an institution and its individual members, an ongoing search to improve practices, to do things better. This notion became popular in management schools under the guise of 'quality circles' in the 1980s (Ishikawa, 1985).

Finally, excellence requires validation and certification. This judgement by an auditor leads to a recognition by a community (e.g. a professional body or an independent agency). In HE, judgements about one's quality of teaching are made by a peer who observes one deliver a lecture or a tutorial, in terms of whether it is helping the students achieve certain learning outcomes. Also, an external reviewer or team of reviewers (e.g. from the Quality Assurance Agency or a professional) can make more general judgements about the quality of teaching in a department or institution as a whole. The outcomes of such reviews can then be made public and be used to take corrective actions or to advertise the quality of the teaching at an institution. We are all familiar which such reviews.

Teaching excellence in the context of HE

It is our view that we need to take into account the specificity of the (culture of) HE sector and even of each university in order to understand what it means to assess the quality of teaching and make judgements about TE, because the goals and missions are different, a point made by Gibbs (2010), among others. It is useful, at this point, to consider different types of universities, in a similar way as Professor Ron Barnett has done (Barnett, 2011, 2013), because they imply distinct appreciations of teaching excellence. Indeed, the report of the Technical Consultation on the TEF (HoCBISC, 2016) talks of 'allow(ing) for diverse forms of excellence to be identified and recognised' (p. 5). For example, teaching excellence means different things in the 'bureaucratic university' and in an 'entrepreneurial university', to use two of Barnett's types. A bureaucratic university may have been the type of university most readers experienced a decade or so ago. It is one where practices are carried out by individuals according to their specified roles for which they are qualified. The performance of these practices is recorded in forms that are constantly updated and therefore, congruence can be audited at any time (e.g. by comparing handbooks and reports). The emphasis is not on the goals or the mission (the 'why'), but on the accuracy and currency of the documentation (records of 'how' things are done). This translates into a notion of teaching excellence which focussed on the production of outstanding course documentation that demonstrates how practice related to goals at the level of a course and ultimately addresses the university mission (congruence). Some of us may remember the frequent modifications of the forms, justified for reasons of audit and documentation, and ultimately accountability.

Similarly, we can consider the 'entrepreneurial university', which many of us find ourselves in during these more recent times. Here the concern, in increasingly 'competitive' HE market contexts, is with performance and league tables, where many universities seek to establish a recognised brand, particularly to recruit valuable international students and researchers. In this type of university, teaching occupies a certain place, perhaps way down the list under other more important aspects such as research capacity, income generation, links with industry and marketing. Therefore, teaching excellence may become a feature of a department that can be used effectively as part of its marketing strategy. In universities with a 'widening participation' agenda, student intakes are very diverse and have chequered experiences of previous education. Many non-traditional

students come with particular 'baggage' (e.g. multiple roles and responsibilities they have to juggle alongside their studies). Teaching excellence in such institutions involves facing challenges that require creativity and dedication on the part of the staff; the latter is not often captured in typical measures of teaching quality. For example, students who lack certain key skills (e.g. IT or writing skills) because they have been away from education for some time are accepted on four-year courses where they spend the first year ('foundation year') catching up or brushing up on their rusty academic skills, and most important, building up self-confidence. Some students may interrupt their studies and take longer to complete their degrees. Personal tutors and other academic staff need to listen to their problems and provide high quality advice to help these students make the decisions that are best for them.

Diversity in HE, according to Gunn and Fisk (2013), is a consequence of the external pressures institutions are under to become a certain type of institution (e.g. research intensive comprehensive, research-intensive specialist, teaching oriented with pockets of research excellence, teaching oriented), as well as the presence of different disciplines and the increasing complexity and diversification of academic roles with different orientations to learning. The roles profiles may entail different weighting given to teaching. For example, 'the all-rounder, who was judged equally in all three categories (research, teaching, administration); the all-rounder with a specialism (minimum performance in all areas with excellence in one or two); the specialist (excellence in one or two areas); the well-rounded teacher (excellence in teaching, satisfactory performance in other categories); the researcher (with other areas of excellence taken into account); pure researcher (for whom the possibilities of demonstrating large-scale teaching excellence is curtailed by the limited time spent with students)' (p. 11). These authors suggest that failing to recognise these differences constitutes a 'normative universalising of teaching excellence' (p. 7). The implication of recognising the differences between types of universities and types of roles that academics play is that different aspects of teaching and learning would receive different degrees of importance. Where metrics or indicators are identified, they ought to relate to those aspects most relevant to an institution.

A proposal to capture teaching excellence in the context of the learning process

In the absence of a clear conceptual framework that describes the different components of the learning process and the factors that affect it (our second criticism of the proposed TEF), we propose a conceptual model that encompasses input-process-outcome elements (see figure 1). This is a convenient way of including many aspects that have been recognised as influential in the ways students learn. We have emphasised some of the aspects that are more relevant in higher education, but this is not intended as a comprehensive model. This model will help us identify indicators of teaching excellence and ultimately appreciate the potential role of ePortfolios as a tool to capture them[3].

Input variables refer to all aspects of learners and learning environments that exist prior to a learning experience, regardless of whether the latter is a single episode or a longer process made up of several learning experiences. Let us start with the learner. Demographic characteristics include broad categories such as sex, age, race, and nationality, among others that help locate an individual in society, but can sometimes lead to unjustified generalisations and stereotypes. Comparisons between groups based on age, sex, etc. require further in-depth explanations based on research of how and why things, such as learning, in this case, take place within a given group. It is important also to point out here to the fact that there are always great variations among members of any category, and groups are seldom homogenous. Therefore, demographic factors rarely provide the complete explanation of why learning is how it is, and are more the start of a process of enquiry. Nevertheless, demographic variables locate individuals in society and often determine the kinds of learning experiences that they can have (e.g. poverty can limit educational opportunities). Equally, culture influences people's beliefs regarding learning and the value of education. It

[3] *While there are some similarities between our model of learning processes and other so-called '3P' models such as the one proposed by Graham Gibbs (2010) where 'pressage', 'process' and 'products' variables are identified, it will soon become apparent that there are important differences. The main reason is that those models are aimed at the macro level of education systems, whereas we focus on learning processes. For example, Gibb's 'pressage' variables include funding student-staff ratios, quality of teaching staff and quality of teaching staff. In contrast, our 'input' variables include many characteristics of the learners, their previous learning experiences, as well as events in their present lives. They include cultural and individual differences (including psychological factors such as mindsets and beliefs about knowledge. Of course, our 'input' variables include the environment (including resources and technology), but place a strong emphasis on the curriculum.*

seems we should have better understanding of how individuals' previous learning experiences and qualifications affect our ability to learn. Anecdotally, we may associate the encounter with an inspirational teacher with our later choice of subject at university, or the opposite, how a difficult experience put us off an area for the rest of our lives. For example, Carol Dweck (1999, 2006) has suggested that the way children are treated during their time at school will shape their beliefs about learning or 'mindsets' which, in turn, influence how they approach learning. Children with 'fixed mindsets', according to Dweck, believe that success or failure is due to their ability not effort, and will interpret results accordingly (e.g. 'I got good grades because I am clever' or 'I failed this test because I am not good at maths'). There is not much that can be done about it, so there is no reason to try harder or something different, and there is nothing that teachers' feedback can offer that can change things.

The opposite happens with children who have a 'growth mindset'. By contrast, they attribute their results to their effort and are eager to try something different the next time. Instead of taking feedback personally, they use it to improve. Progressive changes in adults' beliefs about knowledge, or 'personal epistemologies', have been studied through post-tertiary education (e.g. Baxter Magolda, 2004; Perry, 1970), but relatively little is known yet about how these conceptions influence the ways they learn. Individual differences, for example, intelligence, personality and learning styles, have also been researched (e.g. Furnham & Monsen, 2008; Furnham, Monsen, & Ahmetoglu, 2009), but far less is known about how cultural differences are reflected in the way students learn. Perhaps, the reader can think of many other important factors associated with learners. We do not want to restrict input factors to aspects of the learners' characteristics or their background, but would like to include any aspects of their current lives that influence their learning in positive or negative ways. There is some evidence of the contribution that attachment bonds to parents make to college students' adjustment and development (e.g. Mattanah, Lopez, & Govern, 2011). In the same way, the multiple responsibilities of mature students can influence their learning experiences (e.g. Panacci, 2015).

Input variables also include the learning environment. The curriculum can be understood broadly as learning experiences that arise from the combination of content, goals, methods, assessment, extracurricular activities and (even) learning environment, hidden curriculum and cultures (Shao-Wen, 2012). Curriculum design reflects the history of a discipline as well as the state of the art, but also a pedagogical philosophy, often implicitly. In some institutions, a clear mission guides the curricula. In the first years of the 21st century, centres of excellence in teaching and learning (CETLs) embedded in many universities the UK carried out work on different ways of teaching or facilitating learning. We ought to mention the important work of support systems that assist students with academic skills, but also counselling, general health and finances. Such services operate at a local level (e.g. personal tutors) as well as centrally. Finally, resources include libraries and labs, but increasingly online resources accessible remotely at all times: VLEs, email, ePortfolios, online library catalogues and electronic libraries and portals that provide access to thousands of academic journals.

While the above relates to the conditions for learning, they do not constitute the learning itself. For learning to take place, the students must both engage with the curriculum and use the resources available. By illustration, the University of Bedfordshire aspires to generate learning processes referred to as 'realistic learning' (Gaitán, 2007)4, where the learner is active, not passive. Instead of viewing teaching as the transmission of knowledge we conceive it as supportive of the construction of knowledge by the learner. We favour learning by doing, rather than through merely listening to a lecture. From this perspective, learners become active when the learning relates to their interests or when they can make sense of the material in terms of a purpose for learning it. Learning then becomes meaningful. However, we believe that the most significant learning takes place in social interactions with others (peers or lecturers) where students work on tasks collaboratively. It is essential that learners have their views and prior knowledge challenged and that, as a result of careful analysis and debate, they transform their understanding; there can be a modest, but important, shift or a total reorganisation of their thinking (Mezirow, 1997, 2000). Learning can also be challenging in that the materials and

[4] *The notion of 'realistic learning' relates to some of the 'principles of good practice' proposed by Chickering and Gamson (1987, 1999), but its dimensions describe aspects of the learning process that lead to deep learning and learner development, hence qualities of the learners' experience rather than things that tutors ought to do. We believe the role of excellent teaching is, of course, to foster or promote these qualities of leaning. However, teaching on its own, even if it is excellent, cannot produce realistic learning without the students' engagement. We believe realistic learning requires a partnership between learners and tutors.*

tasks should to be beyond what students already know or are used to and, as such, takes them 'out of their comfort zone' where a substantial effort is needed to complete a task. There is a fine balance between degree of difficulty and ability that ensures that an individual remains motivated and can achieve significant results, as flow theory suggests (Csikszentmihalyi, 1990). We also believe that significant learning requires that the learners are aware of what is happening as they study, as well as what they know before and after an experience, as well as of the process that they have gone through. These types of reflection are often known as 'reflection in action' and 'reflection on action' (Schön, 1983). By reflecting on the learning process, learners can see what can be improved next time they attempt a similar task. Feedback, in its various forms, supports such reflective practice when learners pay sufficient attention to it or discuss it with tutors. Finally, students must 'have the opportunity to influence aspects of their teaching and the assessment they experience'; this is what we have called 'co-created' learning, but it remains the most challenging element of the model of realistic learning.

TE is the contribution of individual lecturers and the institution as a whole to the processes of realistic learning. At the University of Bedfordshire, we like to think that the institutional mission (expressed in its various strategies), as well as the goals and practices of individual lecturers and teaching teams, have realistic learning at their heart. Quality assurance procedures, at least in theory, should support critical engagement and continuous improvement, taking into account the level of effectiveness/impact of such practices. Student feedback is a crucial source of information in this respect. To summarise, student engagement and teaching excellence are processes that, in turn, ignite and provide the energy for the core learning processes described as realistic learning.

The third set of variables refers to the outcomes of the learning processes. The most salient effects of realistic learning in the first stages of learning are changes in awareness and motivation. Students in their first year should make discoveries about their subject, themselves and the social world. For instance, at the end of their first year, they often say that they realise how much broader or complex the discipline is, and admit that at first they had a very simple idea (Gaitan & Atlay, 2008a and 2008b). In terms of motivation, again after the first year most students' interest in the subject becomes stronger, as they confirm their degree is the right one for them, or more diverse. It is expected that, during the successive stages of their studies, these interests will narrow, which should be reflected in their choice of topic for their final year project and future career plans. These outcomes are not very often recognised either by institutions or tutors. Improvements in students' knowledge and skills are, by contrast, made explicit at every stage of the curriculum in the documentation of university courses and are the object of formal assessment. More general, but equally important outcomes, include academic attainment, which for an individual is expressed as the weighted average for a unit/module or at the end of the course (e.g. the GPA or the degree classification), and for the institution as the percentage of 'good degrees'. There is, however, agreement that achievement, on the other hand, refers to the progress made by a student, based on his/her specific circumstances, and describes a process[5]. Some institutions confer special awards for outstanding achievement, but this is not normally measured routinely. Admittedly, some progress has been made to express specific graduate attributes that are more informative in a final report called 'Higher Education Achievement Record' (HEAR), but this varies across the sector[6]. Finally, a very important outcome is the ability of graduates to gain graduate employment (known as 'employability'). This has been the focus of most higher education institutions over the last two decades. Data are collected for the whole of the UK through the Destinations of Leavers from Higher Education (DLHE) survey and published for each institution and course, describing the proportion of graduates working in the UK, working overseas, working and studying, studying, unemployed or involved in 'other' activities (e.g. travel). However, league tables of universities use percentages of graduates in 'graduate jobs' as a success criterion. It has often been argued that since the survey only describes leavers' destination six months after graduation, it misrepresents the employability of graduates in areas that require further training beyond a first degree, since they often take on jobs for a year or so, to pay off their debt before

[5] *A related notion is that of 'learning gain', defined as 'an attempt to measure the improvement in knowledge, skills, work-readiness and personal development made by students during their time spent in higher education' (Higher Education Council for England [HEFCE], 2016). There are currently 13 project funded by HEFCE that have identified a number of ways of assessing learning gain, including grades, surveys, standardised test and other qualitative methods and mixed methods.*

[6] *The HEAR has been considered as having recognised potential for formative and more holistic use, see https://www.liverpool.ac.uk/my-liverpool/*

enrolling in further study (see Smith & Knight, 2000, for a critique of these data).

Gunn and Fisk (2013) outlined four types of outcomes that are expected of HE institutions in relation to their students: disciplinary mastery, disciplinary mastery and development of transferable skills, entering fit-for-purpose into a profession, engagement with local and global knowledge economy, or social justice or political needs. These constitute different, although not mutually exclusive orientations to education where teaching excellence, entails providing a context that promotes each of these outcomes.

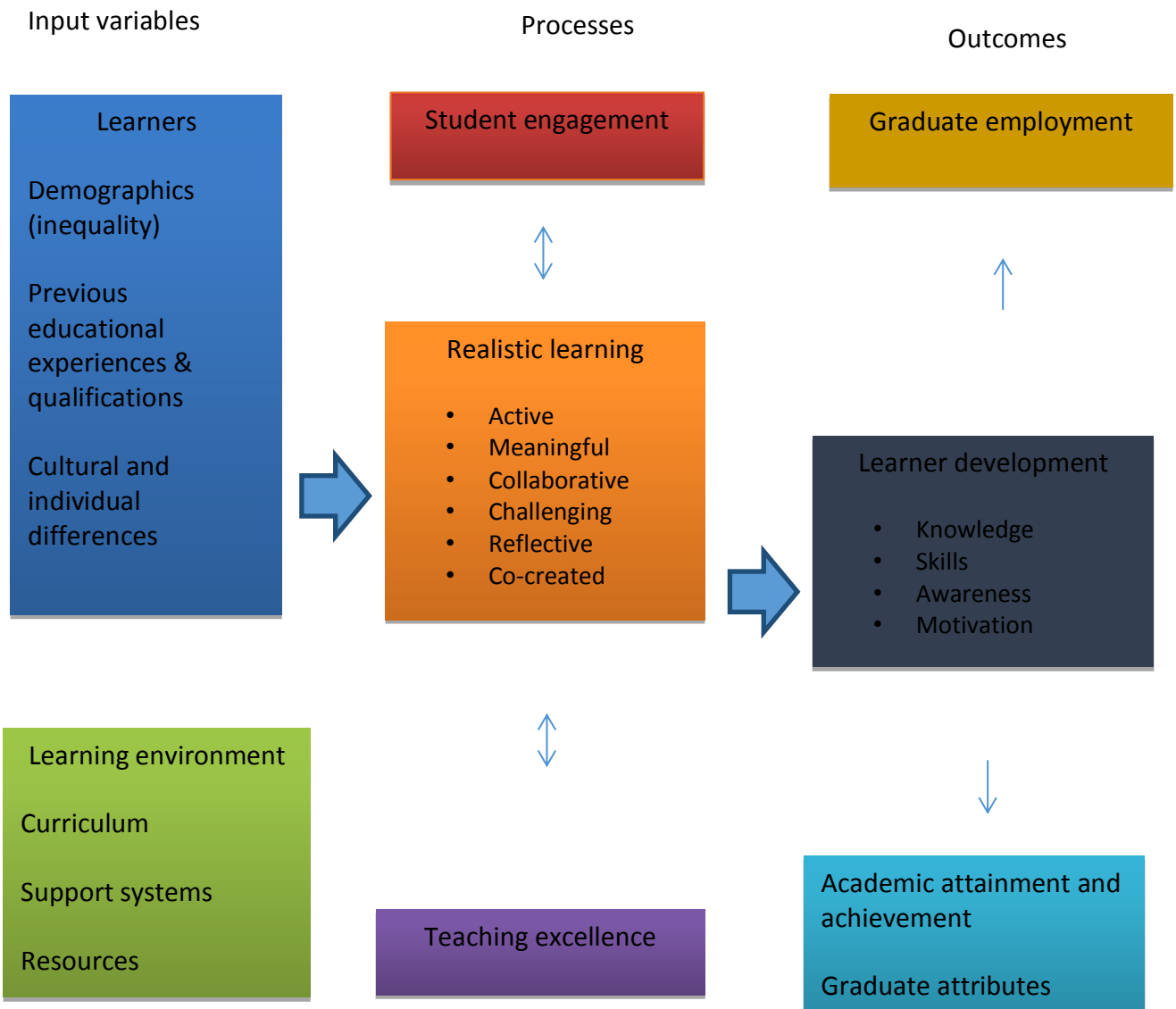

Figure 1. Conceptual model of the learning process in HE.

Mapping official proposals

Our input-process-output model (figure 1) can be used to try to locate the metrics of teaching excellence currently proposed by the government while indicating what additional measures or indicators could most effectively be incorporated to provide a more comprehensive picture that includes the learner experience. As can be seen in figure 2, we added another dimension which refers to whether an indicator is standardised or idiosyncratic. Standardised indicators are typically measured using the same procedure in every institution. This has obvious advantages as these are easy to collect (in the case of surveys) and interpret. Results are quantitative and this allows comparisons across the sector. Idiosyncratic indicators are obtained by means that are designed for a particular institution and even when they follow procedures that are generic they produce textual material instead of numerical scores. Let's start with input variables that are already available. For instance, student demographics are routinely collected by institutions and 'organisation and management' and 'learning resources' are measured by the NSS. However, while these are conditions for good teaching and learning, they are not strictly, teaching excellence. In terms of processes, the Key Information Set (KIS7) provides information about 'contact time' which is a poor 'proxi' measure, because although students and tutors must have regular contact, a large amount of time spent in classrooms is not necessarily indicative that high quality learning is taking place. More relevant is the information collected by the National Student Survey (NSS8) about 'teaching', 'assessment' and 'support', but as with most questions in the NSS, there is room for speculation regarding what exactly students mean when they say they are 'satisfied 'or 'highly satisfied' with an aspect of a course. However, the government papers on the TEF do not contain references to means of measuring teaching excellence directly (i.e. the practices that promote high quality learning as described by the notion of realistic leaning explained above). Finally, there are already metrics related to outcomes of the learning process and therefore can be considered as indirect measures of TE (again, called 'proxis' by the government), for example, progression and retention data (HESA), employment (DELHE) and 'personal development' (NSS). As was pointed out, there is an absence of direct measures of teaching excellence at the level of institutions that capture in more detail what actually happens in terms of practices that enable realistic learning. We would like to suggest that in-depth evaluations like the subject /institutional periodic review (QAA9) or internal validation processes may contain such level of detail. However, we are well aware that external and internal audits are highly staged managed exercises that can misrepresent what actually happens in terms of teaching and learning. These three measures are idiosyncratic and qualitative; they provide, of course, information about input, process and outcome variables. We have included the External Examiners' reports10 which are routinely produced at the end of each academic year, but these are normally focused on assessment and seldom refer to the overall quality of teaching. Perhaps, the closest evaluations of teaching excellence may be the peer reviews of teaching that include actual observations of teaching and learning in real time, and refer to the intended learning outcomes.

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[7] In the UK, all universities are required to submit information about their courses which should help applicants make decisions regarding what university and course are best for them. Such information include includes results from the National Student Survey, the proportion of time spent in various learning activities, the proportion of summative assessment by method, professional, statutory and regulatory bodies that recognise the course, institution owned/sponsored accommodation, financial support available from the institution, average fees, the destinations of graduates six months after completing their course, the proportion in managerial/professional jobs six months after graduation, and salary data for those in full-time employment. These data are available on a website called UNISTATS (https://unistats.direct.gov.uk/find-out-more/key-information-set)

[8] All students registered in the final year of a course in a higher education institution in the UK are invited to complete the National Student Survey (NSS). This online questionnaire is composed of 23 questions asking students to rate their satisfaction with different aspects of their courses, including teaching, assessment, academic support, organisation and management, learning resources, overall satisfaction with the course and the student union. The survey is administered by IPSON-MORI which is a totally independent agency (see http://www.thestudentsurvey.com/about.php for more information).

[9] All institutions of higher education in the UK undergo periodic reviews by the Quality Assurance Agency.

[10] All courses have appointed External Examiners, are peers form other institutions, who monitor the assessment processes and the awards conferred by the examination boards.

	Input (conditions)	Process (direct)	Outcome (indirect)
Standardised/ quantitative	• Student demographics • **Organisation & management (NSS)** • **Learning resources (NSS)**	• **Teaching (NSS)** • **Assessment (NSS)** • **Support (NSS)** • Contact time (KIS)	• Progression/ **retention** (yearly) (HESA) • 'Good degrees' (final) • **Employment (DELHE)** • GPA (proposed) • **Personal development (NSS)**
Idiosyncratic		• Peer review of teaching (Peers) • Assessment (EE)	
	• Subject review (QAA) • Accreditation (external bodies) • Validation (Internal)		

Figure 2. Metrics of teaching excellence proposed in the White Paper [in bold] (BIS, May 2016) and other suggested measures

Towards the end of the presentation at the joint CRA – AAEEBL Seminar last June where this paper was delivered, the audience were asked to suggest ways in which ePortfolios could provide useful information about teaching excellence using the model. Their responses were categorised and transcribed verbatim (see table 2).

Table 2. Information that ePortfolios could offer about different aspects of the learning process.

1. Input factors a. Incoming attributes, student characteristics b. Students – who they are c. Context of learning
2. Processes a. Student engagement (inc. quantitative measures of use of certain features), meaning engagement b. Experiential learning c. Levels of feedback d. Active, meaningful, collaborative and reflective learning e. Personal resonance of educational experiences, most meaningful experiences, richness of the experiences f. Support as identified by the students g. Engagement with assessment h. Co/extracurricular activities i. Ongoing assessment of learning, context of assessment j. Material in repository
3. Outcomes a. digital literacies b. employment pathways c. Outgoing attributes d. Knowledge, ideas learnt, skills (reporting, professional), awareness, motivation e. Progression/retention f. Good degrees g. Employment h. Personal development i. Learning gain – journeys j. Personal examples of achievement

As such, the potential contributions of ePortfolios are:

- They offer a unique opportunity to access information regarding learners' backgrounds (cultural, educational, etc.), their individual characteristics. They also contain descriptions of the context of learning, as perceived by the learners. (input).
- They contain rich descriptions of significant learning experiences (curricular, and co/extra- curricular), the reasons for their engagement (meaningfulness), as well as the role of teaching, including support, assessment and feedback (process). Not proxis, but the real thing!
- They recognise and celebrate the learner' achievements, in terms of their goals, and development. The latter often illustrate the most important changes that have happened during their studies and also the distance travelled (learning gain) when students compare what they were like at the start with what they are like at the end of the journey. They also highlight the knowledge and skills contained in institutional learning outcomes. ePortfolios describe career pathways and readiness to take up employment. These are all indicative of the degree of effectiveness/impact of teaching practices as much as the learners' effort or engagement. (output).
- However, ePortfolios tend to be highly idiosyncratic in that they privilege the student's views, not as averaged responses to questionnaires or interpreted focus groups, but their perspectives expressed as they wish to express them.

Implementing use of ePortfolios in a TEF submission

This exercise comprised the beginning of a conversation regarding the possible contribution of ePortfolios to the evaluation of TE which will take place as a result of the proposed Teaching Excellence Framework, particularly towards the so-called 'narrative' or 'qualitative' component of the submission which each institution will be able to make in the second year of implementation. We would like to suggest three possible versions of how ePortfolios could be used for that purpose.

Version 1 ('unstructured'): In this version, ePortfolios could be used in their present form. That is, with their current variety of structures and content across areas in an institution. The first stage would involve selecting a random sample representing all areas. The second stage would involve a content analysis performed by a small dedicated team of experts in qualitative research from different areas. The aim is to illustrate aspects of teaching excellence associated with outstanding outcomes as identified by the students in their ePortfolios.

Version 2 ('structured'): This version requires that a minimum of standardisation is introduced at the start. This involves identifying and documenting the ePortfolios in use in the different areas and agreeing on a set of areas. A step further could include designing templates for students to use in the different areas. At the end of the year, a sample would be selected representing different levels of attainment (this is a difference with version 1). Content analysis to identify aspects of input and process identified by the students, in a similar way as in version 2.

Version 3 ('focused'): This version could take as its starting point ePortfolios in their existing form or 'structured' ones, but unlike version 2, it would not seek to include ePortfolios of students with different levels of attainment. Instead the criterion for inclusion in the sample would be that they depict stories of significant transformation or leaning gain. The content analysis would be similar to the ones described in versions 1 and 2.

The results of the content analyses would then have to be woven into a coherent narrative that illustrates specific aspects of the TEF that an institution wants to emphasise as its main strengths. The consultation document (BIS, 2016b) provides some illustration of the type of evidence that would be accepted in an institutional submission. However, more specific guidance is expected as result of the consultation.

Conclusion

This paper provides a brief summary of the background to the TEF so that readers have an overall view of its role in the wider context of HE policy in the UK and awareness of the imperative for institutions to respond in light of the tight timescale involved in its implementation. It also aims to make several contributions to the further understanding these developments. First, it offers greater clarity with respect to the notion of TE and argues for the need to consider that teaching excellence may be different in institutions (e.g. widening-participation institutions compared to other institutions). Second, it proposes a conceptual model of the learning process in HE with which to map the proposed metrics of teaching excellence and identify
additional ones. Third, it makes the case for the role of e-Portfolios in the generation of the 'qualitative/narrative' element of the TEF submissions, on the basis that they capture evidence of teaching excellence through rich descriptions of learning experiences and learning gains, from the learners' perspectives.
Finally, in advancing this proposal, the paper suggests several examples of ways in which information generated from ePortfolios could serve not just to reflect on individual learners and their learning journey, but to evaluate excellence at an institutional level. Further development work may be necessary before a methodology can be implemented at institutional or subject/discipline levels.

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Issue 1 (2017)

The International Journal for Recording Achievement, Planning and Portfolios

CRA

Open Badges in Education

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A digital badge is an online credential displaying achievement or recognition of a competency being met. An Open Badge is a digital badge containing metadata based on the Open Badge Infrastructure[11]. This metadata will include the awarding institution, the recipient, the name and description of the badge, the criteria required to achieve the badge, the date issued, and could also include optional data such as the badge holder's evidence (Mozilla 2011). Open badges are not fixed to any proprietary system, and as they are based on an open standard[12], users can receive open badges from many locations and collate them into collections. These collections are held in a secure online location, often called a digital backpack[13], and can be displayed on online spaces such as individual blogs or LinkedIn profiles.

Abramovich et al. (2013) describes two alternative models of badges – merit badges and videogame achievements. The merit badge is the equivalent of the Boy and Girl Scout badges, where children would choose which badge to go for, and then earn the awarding of the badge by demonstrating they have learned a particular skill. The displaying of the badges on the shirt sleeve of the scout uniform acted as a type of curriculum vitae, showing the achievements of the scout. Videogame badges are awarded to videogame players when they accomplish a particular task or achievement within the game. Online profiles allow players to demonstrate their achievements to their peers

Both of these models of badges have links to educational Open Badges which are a relatively new development. Students can earn badges by demonstrating competency or skills development, and can display their badges on online spaces such as blogs and LinkedIn. They can also earn Open Badges for incidental activity similar to some videogame badges, as well as choosing to earn a specific badge. A report from the Open University in 2012 (Sharples et al. 2012) outlined the possible benefits and marked Open Badges as having a high impact over the next five years. The benefits described include the ability to break down a course into more manageable 'challenges', using badges as a self-awarding system to encourage reflective practice, and as the badge can provide a direct link to evidence that demonstrates achievement of the criteria , they argue that it has the potential to be more persuasive to an employer than a degree certificate

Potential Benefits of Open Badges

Increased employability of students

Tymon (2011) has suggested that the introduction of tuition fees in UK HE has influenced why students choose to attend higher education. One of the main choice factors for students when picking universities is the employability of students upon graduation (Maringe 2006). The employability of university graduates is measured using the DLHE survey[14]. This is a survey by institutions to measure what proportion of their graduates are in employment, and also how many are in 'graduate level' employment. By recognising informal learning and linking this with employers' demands, badging can be used to increase the employability of students. As the focus of Open Badges can be on skill acquisition they can be used to formally recognise informal learning (Glover & Latif 2013). Badging can offer a way of

[11] http://openbadges.org/

[12] http://www.digistan.org/open-standard:definition

[13] https://backpack.openbadges.org/backpack/welcome

[14] http://www.hefce.ac.uk/lt/dlhe/

linking this informal learning with the demands of employers (Law et al. 2014).

Students' employability is increased when engaging in extra-curricular activities during their study as they are better at evaluating their ability in 'soft skills' such as leadership, communication, creativity and self-promotion (Lau et al. 2014). In some employment scenarios, the soft skills learned at university are more important than the subject discipline skills (Yorke & Harvey 2005). Some universities are seeking to develop soft skills by offering extra-curricular awards and using Open Badges to reward their achievement (Ward 2012). Typically these awards are run through the institutional careers service, and are achieved by students who demonstrate a commitment to extra-curricular activity such as volunteering and the ability to reflect on how this makes them more employable. The Higher Education Achievement Record (HEAR)[15] is one current mechanism being used to record student achievement. This is an electronic document, but cannot be displayed online in the way an Open Badge can, and while criteria may form part of the HEAR, evidence is not linked.

Increased Motivation

Clark et al. (2006) suggest that motivation is almost as important as cognitive aptitude in influencing a student's ability to complete studies. Motivation is linked to cognitive workload, with an overload in cognitive work likely to unconsciously demotivate and decrease persistence. Assessment is also closely linked to motivation, with well-designed assessment helping students to learn through formative feedback. Over-assessment or badly designed assessment can change students' motivation from mastery of the subject to the mastery of taking exams.

So if motivation is almost as important as cognitive aptitude, how can motivation be increased? Could the gamification of learning also introduce elements of increased motivation? Open Badges have a close link with the gamification of learning. Gamification is becoming more visible in everyday life. One example is to run with tracker devices such as Fitbit and Nike's Fuel Band. These devices track how many steps the wearer takes in the day and synchronises the data collected with an online website. The device site will then provide rewards in the form of digital badges for meeting daily targets and other milestones (Kapp 2013). Similarly, setting rewards for reaching specific achievements can be motivational for some students, and can be used to guide students towards best study practices.

Hakulinen et al. (2013) studied the use of badges in their TRAKLA2 online learning environment. Badges were awarded to Higher Education students for completion of tasks such as solving exercises without mistakes, returning work early or completing a section of work with full marks. Students in a control group did not receive any badges. In all cases, the awarding of badges had no link with the final grade for the course, but the results of the study showed that "achievement badges had a significant impact on some aspects of students' behaviour, and a small group of students was especially motivated to pursue them."

We have discussed earlier how gamification of our everyday life and within learning can be used as a motivator. Ryan & Deci (2000) describe motivation as "concerning energy, direction, persistence and equifinality – all aspects of activation and intention." They discuss how research about motivation is valued outside the field of psychology, especially for those in roles such as managers, teachers, religious leaders, coaches, and parents – roles that require persuading others to engage and be active. People who are intrinsically motivated will be more resilient, creative and will show enhanced performance. Badges are an extrinsic motivator and may not provide the preferred motivation within students. However in the same context it could be argued that the attainment of a university degree certificate is also an extrinsic motivator.

Research Question

The research reported in this article was looking to explore several key questions: How aware were people working in UK HEIs of Open Badges and how did this vary with their role? I assumed that most learning technologists would have an awareness, but I wanted to explore management and academic awareness. At what stage of implementation of Open Badges were institutions?

- Were there any geographical differences in attitudes or implementation of Open Badges? We knew this was going to be an international survey with members of the Europortfolio[16] network invited to respond, so

[15] http://www.hear.ac.uk/

[16] http://www.eportfolio.eu/

differences between regional implementation was of interest.

- What technologies were being used, or considered, to award the badges to students?

Methodology

For this research, two separate surveys were conducted. Both surveys were advertised through various Jiscmail listserv mailing lists:

- Blackboard users mailing list (BLACKBOARD-USERGROUP@JISCMAIL.AC.UK)
- Association of Learning Technologists (ALT-MEMBERS@JISCMAIL.AC.UK)
- e-assessment (E-ASSESSMENT@JISCMAIL.AC.UK)
- ePortfolio and PDP (PDP-AND-E-PORTFOLIOUK@JISCMAIL.AC.UK)

The link to the survey was also distributed on social media channels, predominantly Twitter. This means that in both surveys respondents were self-selecting and therefore likely to have a higher awareness of Open Badges.

Initial Survey

The first survey was available from the 23rd to the 29th June 2015. The purpose of this survey was to support internal work within my University through gaining an insight into the use of Open Badges across other UK institutions. 62 responses were received as shown in Fig 1.

Higher Education	54	UK	46
Further Education	5	Non-UK	8
Adult/Work-Based Learning Provider	1	Unknown	8
Other	2		

Figure 1. Survey 1 respondents: type of institution and country of origin (n=62)

The questionnaire was created using Google Docs and distributed using the methods described above. The questionnaire had three mandatory questions:

1) Can you describe what stage of the implementation of Open Badges you are at?
2) What areas are you considering using Open Badges for?
3) How are you planning to issue the Open Badges?

There were two optional questions

a. What is the name of your institution?
b. What kind of organisation do you work for?

Responses to initial survey

It was not surprising that the majority (32) of institutions who responded were either not progressing / considering, or at the exploratory stage of badge implementation (Fig 2). Nor was the use of the VLE as the tool to award the badges surprising as most educational institutions have a VLE and the main competitors have an implementation of Open Badges as part of the core product (Fig.3). The planned areas of use for badges was surprising though (Fig.4), with the most popular response being staff CPD (24). It is interesting to compare this figure with the result from our main survey.

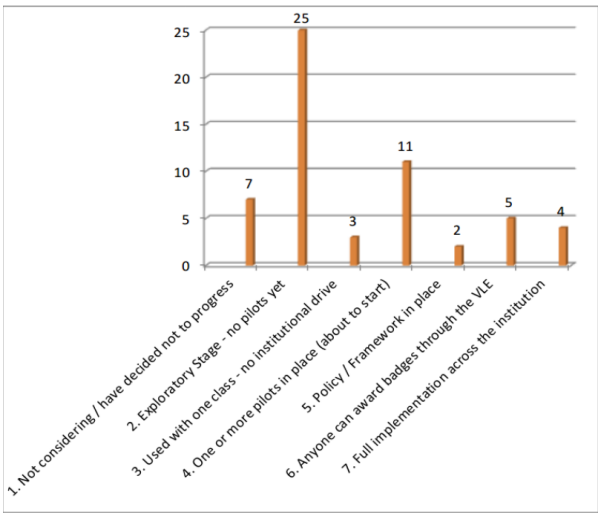

Figure 2 Stage of Badge Implementation

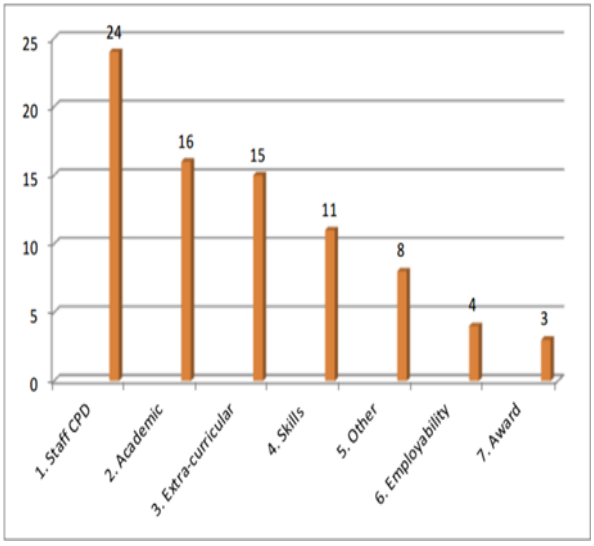

Figure 3 Issuing platform to be used

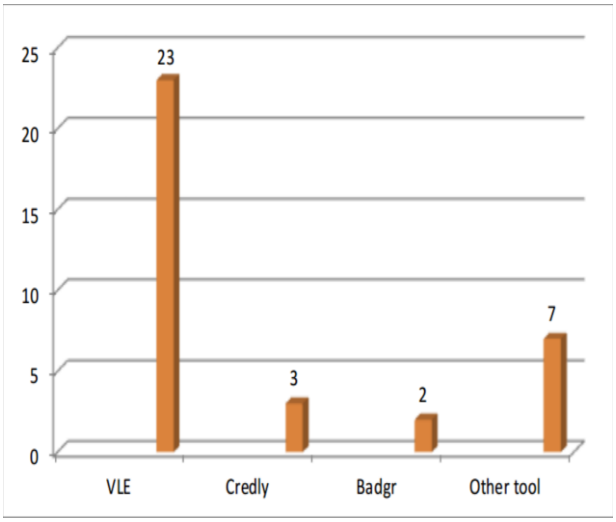

Figure 4 Purpose of Badge Implementation

Main questionnaire

After the response from the June 2015 survey, it was clear that a larger investigation of this topic would be useful to the UK HE educational community.

The purpose of the survey was to try to attain a greater understanding of the use of Open Badges across educational institutions, and to find out how much of the use was driven by academics or by e-learning teams. There was branching applied to the questionnaire. This allowed for tailoring of the questions dependant on the answers provided: for example, asking academics further questions relating to their use of badges with their students.

The distribution of the survey was carried out in the same way as above, but it was also sent out to the Europortfolio network by the Centre for Recording Achievement[17].

We had 123 responses to the survey from 27 different countries. 60 (48%) of the responses were from the United Kingdom, 41 (33%) were from the rest of Europe, and 22 (18%) were from outside Europe (figure 5).

UK	60
US	9
Germany	7
France Republic of Ireland	4 each
Austria Australia Denmark Poland Spain	3 each
Canada Finland Malaysia New Zealand Serbia Slovenia Switzerland	2 each
Argentina Belgium Croatia Indonesia Italy Lithuania Mexico Nicaragua Sweden Turkey	1 each

Fig.5 Survey 2 respondents: country of origin (n=123)

[17] http://www.recordingachievement.ac.uk/

The survey data analysis

The role in the organisation

The first question asked respondents for their role in the organisation. As this was a self-selecting survey, the 55% figure for learning technologist / e-learning specialist was not surprising (Fig.6).

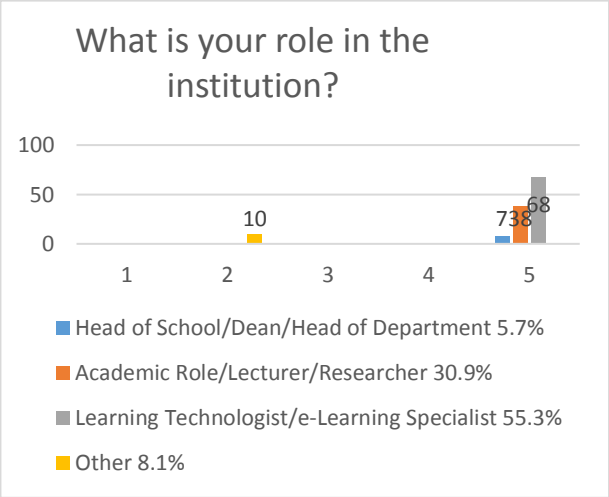

Figure 6: Institutional Role

It is interesting that all the roles feel that they have some level of strategic influence. 71.44% of Head of School/ Dean/ Head of Department, 47.37% of Academic Role / Lecturer / Researcher and 57.35 % of Learning Technologists / e-Learning Specialists feel they have a 7–10 level of strategic influence (Fig.7).

Strategic Influence	a1. What is your role in the institution?				No answer
	Head of School / Dean / Head of Department	Academic Role / Lecturer / Researcher	Learning Technologist / e-Learning Specialist	Other	
1	0.00%	7.89%	5.88%	10.00%	0.00%
2	0.00%	2.63%	5.88%	0.00%	0.00%
3	28.57%	13.16%	5.88%	10.00%	0.00%
4	0.00%	5.26%	8.82%	0.00%	0.00%
5	0.00%	13.16%	5.88%	0.00%	0.00%
6	0.00%	10.53%	10.29%	0.00%	0.00%
7	14.29%	28.95%	19.12%	10.00%	0.00%
8	14.29%	18.42%	25.00%	40.00%	0.00%
9	28.57%	0.00%	4.41%	10.00%	0.00%
10	14.29%	0.00%	8.82%	20.00%	0.00%
No answer	0.00%	0.00%	0.00%	0.00%	0.00%

Figure 7 – Strategic Influence: Figures are shown as a percentage of the column.

As may be expected from a self-selecting survey, most (89%) of the respondents had at least a familiarity with the concept of Open Badges. 46 (37%) of respondents who class themselves as having at least 7 out of 10 strategic influence are either familiar with the process of issuing Badges or have personally received an Open Badge (Fig. 8).

Strategic Influence	a5. How aware are you of Open Badges?					No answer	Totals
	I know very little about Open Badges	I am familiar with the concept of Open Badges	I am familiar with the process of being granted and claiming Open Badges	I am familiar with the process of issuing Open Badges	I have personally received an Open Badge(s).		
1	4	2	1	1	0	0	8
2	0	1	0	3	1	0	5
3	3	3	2	2	2	0	12
4	0	3	1	1	3	0	8
5	1	3	0	1	4	0	9
6	0	2	1	2	6	0	11
7	1	11	1	8	5	0	26
8	3	5	1	7	13	0	29
9	0	1	0	1	4	0	6
10	1	0	0	1	7	0	9
No answer	0	0	0	0	0	0	0
Totals	13	31	7	27	45	0	123

Figure 8: Strategic Influence

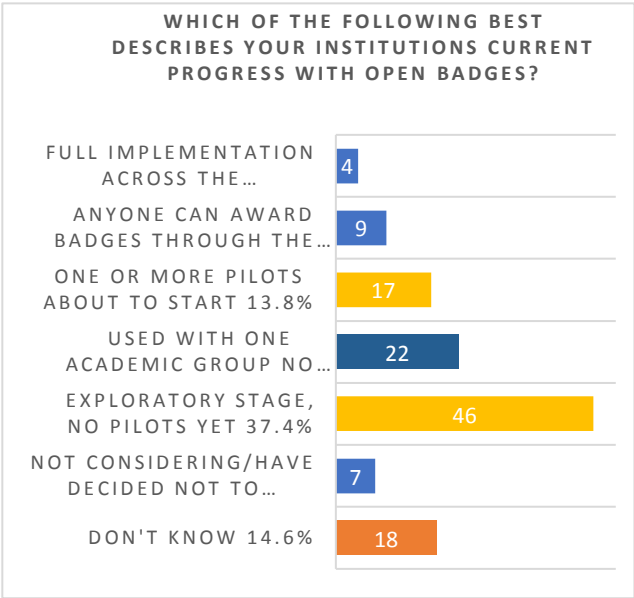

Figure 9: Stage of Badge Implementation (Main Survey)

Open Badge Implementation

The study was mainly focused on implementation of Open Badges in the institution. Current progress in Open Badges was assessed but there is a risk that institutional implementation is then interpreted as a linear process. The study had six possible options available to respondents and it should be noted that institutions could have several of these as valid statements at a point in time (i.e. the institution may allow badges to be awarded through

the VLE, and there may be some pilots about to start).

46 (37.4%) responded that they were in the exploratory stage. This corresponded to the original survey that had 44% with the same response. It is interesting that 39 (32%) respondents either have a pilot about to start or are already using open badges with one academic group (figure 9).

There is a large difference in this data when comparing Europe against the UK and the rest of the world. When comparing this question across geographic demographics we can see that in Europe there are 24 (59%) institutions categorising themselves as in an exploratory stage, while only 15 while only 15 (25%) in the United Kingdom and (32%) in the rest of the world would describe themselves similarly (figure 10).

Which of the following best describes your institution's current progress with Open Badges * UK, Europe or Rest of the World. Crosstabulation

Count

		UK, Europe or Rest of the World.			
		United Kingdom	Europe	Rest of the World	Total
Which of the following best describes your institution's current progress with Open Badges	Don't know.	12	3	3	18
	Not considering / have decided not to progress.	2	3	2	7
	Exploratory Stage - No pilots yet.	15	24	7	46
	Used with one academic group - no institutional drive / policy.	11	7	4	22
	One or more pilots about to start	11	2	4	17
	Anyone can award badges through the VLE	8	1	0	9
	Full implementation across the institution	1	1	2	4
Total		60	41	22	123

Figure 10: Badge Implementation: Global Comparison

Barriers to the implementation of Open Badges
A number of institutions seem concerned about the security and validity of Open Badges (Fig.11), and I would highlight the recent work to improve this by the Badgechain [18] community who are trying to integrate Blockchain[19] with Open Badges.

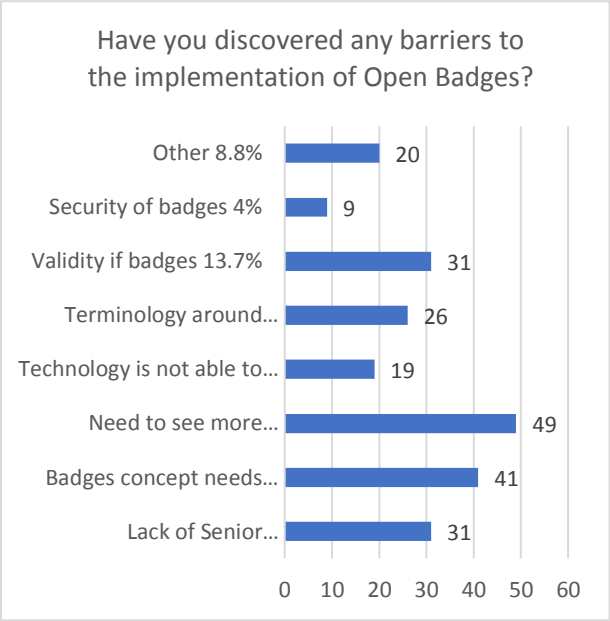

Figure 11: Barriers to Implementation

Purpose of Open Badges
The initial survey asked what the respondents were planning to use Open Badges for. It was surprising that the main response was staff CPD, with 'academic' lower by 8 responses (Fig. 4).

This question was asked again in the main survey and staff CPD had moved to third in the list with 43 (29%) responses for skills development. Academic achievement was the next most popular selection with 30 (20%) responses (Fig 12).

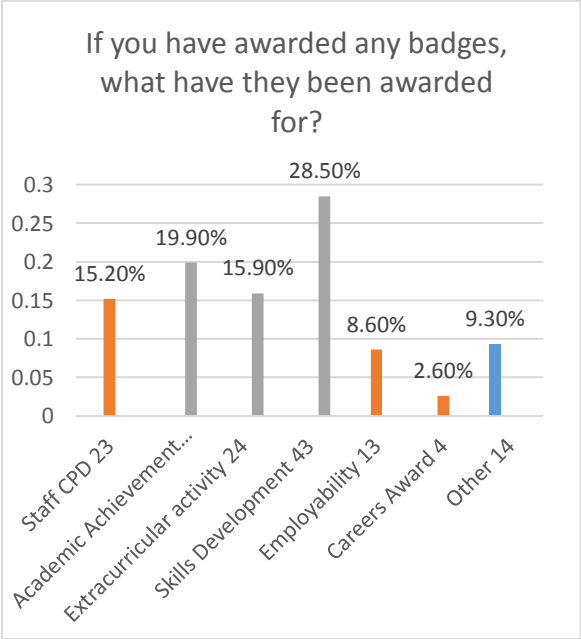

Figure 12: Purpose of Badge Implementation.

[18] https://medium.com/badge-chain
[19] https://www.blockchain.com/

Comparison of the purpose of Open Badges across geographic locations shows that use of Open Badges for staff CPD was predominantly focused on the United Kingdom (figure 13)

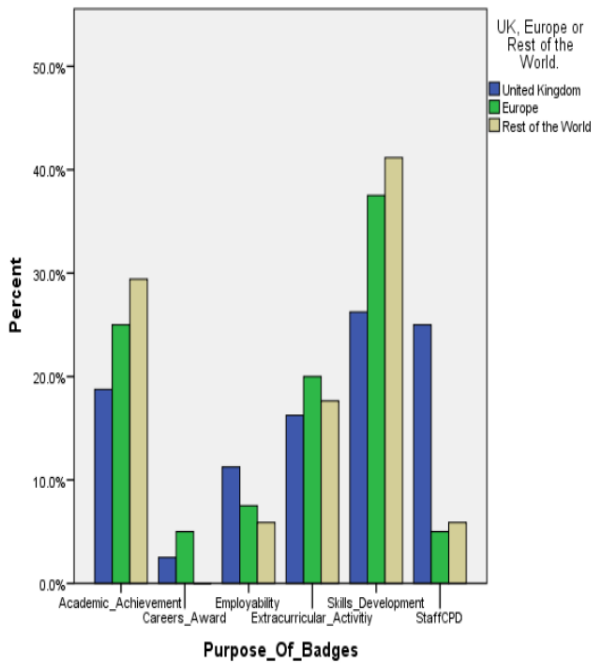

Figure 13: Global Comparison of Purposes

Academics' use of Open Badges

38 (31%) of respondents have an academic role in their institution. Out of those 38 academics, there are 12 (32%) that are using Open Badges with their students. The 12 academics were asked what the students had to do to achieve the award and the responses fell into two main categories. The first category relates to demonstrating that a competency level has been achieved:

- "meet learning outcomes set for a module"
- "they need to complete a module of the course, completing all the required tasks"
- "each badge has distinct criteria but most of them are for completing practical tasks"

The second category relates to a level of participation:

- "we also use participation badge and to recognise contribution"
- "participate in online discussions, share student made resources, attend seminars, peer review each other"

The main outcome that academics were expecting was an increased motivation from their students, and this was closely followed by a recognition of 'softer' skills learned. There were 3 'other' responses, one of which was the 'increased level of mastery of the subject' (figure 14).

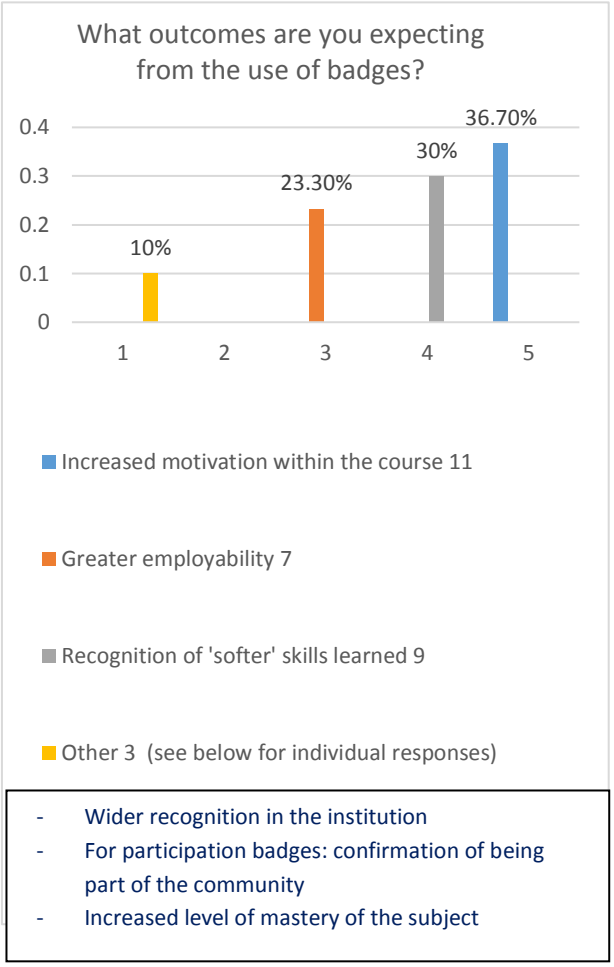

Figure 14: Academics' expectations of outcomes from badge use

Of the 12 academics that are using Open Badges, 8 have assessed their students' opinions on their use. One academic, who is not using Open Badges with students, assessed students' opinions about badges but felt that the response was sceptical and decided not to proceed.

Of the 9 academics who have evaluated students' opinions of badges, a follow-up question asked what the student response to badges were. The majority of the responses were positive and included:

- 75% viewed experience positively (60+ students);
- They were very interested, some asked why badges are not used in all courses;
- Some students did not understand completely the role of the badges, others state that the use of badges increased their motivation and facilitate their perception of being part of a learning community;
- Motivation and interest for something they could use later for finding jobs

Pilots

35 respondents said they either have pilots running currently, or have pilots in development. The areas

where badges are being piloted are varied but strong themes include staff and academic CPD, employability/entrepreneurial modules, development of soft skills such as leadership, and also in MOOCs.

Issuing of badges

31 respondents said they were using the institutions' virtual learning environment (learning management system) to issue their Open Badges, but in the 'Other' category there were 5 responses saying "Moodle" so the initial figure should rise to 36, and the other responses should drop to 22 (figure 15). This high figure is expected as most institutions have some form of VLE, and Open Badges are part of the core product of the two most popular VLEs (Blackboard and Moodle).

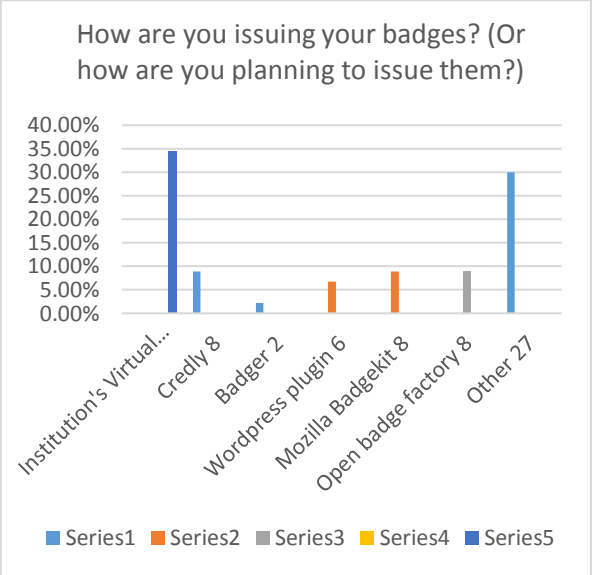

Figure 15: Issuing badges

17 of the 'other' responses are either for the creation of the institution's own application to issue badges, or exploring other badge software. In total, 49 (40%) are exploring a different mechanism than using the institutional VLE/LMS for awarding badges.

Conclusions

It can be seen from the results of the survey that there is interest internationally in the use of Open Badges, although it can be safely assumed that the technology is in the early adopters' stage of Roger's (2010) innovation adoption lifecycle. There is a geographic difference with European institutions describing themselves mainly in the exploratory stage, whereas the United Kingdom and rest of the world allocate themselves differently.

Most respondents who answered the survey, regardless of institutional role, have an awareness of Open Badges, but this can be expected as it is a self-selecting survey. There is a strong academic interest in the use of Open Badges, and the student response seems to be very positive. This correlates with the findings of Hakulinen mentioned on page 4 of this report. When comparing the purpose of Open Badges, Europe and the rest of the world *are not using them extensively for staff CPD.*

Further research is needed in relation to the barriers for entry with a shortage of good practice examples and the need for further development of the badge concept being seen as the main barriers. Further exploration of the areas of the concept requiring development would be beneficial.

With 49 respondents exploring different mechanisms other than the VLE/LMS to deliver badges, does this also suggest that the implementation found in some VLEs is not meeting the requirements of educational institutions?

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Issue 1 (2017)

The International Journal for Recording Achievement, Planning and Portfolios

CRA

Making a difference to employability through assessment – Challenges and Opportunities

Authors: Andy Hollyhead and Jon Curwin, Birmingham City University, based upon original work with Ruth Lawton

Within the context of Higher Education, assessment is accepted as a major driver of student behaviour (Kirkwood, 2009; Rowntree, 1989), informing how they are going to be judged and in what ways they can be successful. In this article we explore the notion that effectively-designed assessment, particularly at course level, can do more than this - it can support student employability. Well-intentioned, piecemeal efforts like a single employability-focussed assignment in one isolated module or an optional CV writing workshop might make a difference to some individuals, but are likely to make little impact on the student cohort as a whole. However, to engage students with their course and future possibilities a more cohesive and thoughtful strategy across a course is required which includes content, activities and assessment explicitly addressing the challenges of employability. If employability is important then achieving outcomes that will be valued by graduate employers, among others, must be part of assessment formulation:

> "If we want our students to demonstrate employability when they graduate, our assignments need to be designed to be practice-based, whether in terms of the practice of being a researcher or applications to professional contexts such as being an artist, an accountant, a health practitioner or a quality surveyor. Rather than assessing a learner's ability to write about good practice, an effective assessment strategy would seek to measure how the student can put into practice the learning achieved" (Brown, 2004, p. 83).

The authors argue that assessment is too important to be piecemeal. Assessment can do more than produce the right mark and show the level of completion across a number of modules. The challenge is to design assessment that will meet the practical constraints of course delivery and support student personal and professional development.

The challenge of employability

Employability is not the same as employment but having that sought-after job is indicative of those qualities. More formally employability can be defined in terms of:

> "A set of attributes, skills and knowledge that all labour market participants should possess to ensure they have the capability of being effective in the workplace – to the benefit of themselves, their employers and the wider economy" (National Union of Students and Confederation of British Industry, 2009, p. 12).

Individuals need to find ways to stand out from the crowd, for instance a significant and positive online presence or fluency in another language will make a difference. Curwin and Lawton (2015) argue that the driver should be the achievement of competitive advantage through differentiation: students need to do more than merely develop a checklist of skills: "[which] can be thought of as threshold skills; without which an applicant will struggle to compete. If being uniquely good is important, then the applicant needs to be advised to evidence these threshold skills but they will also need to be advised to evidence all those attributes, characteristics and insights that make them special. To stand out an applicant will need to showcase those qualities and skills that make them different." (Curwin and Lawton, 2015, p. 42). In the joint report by the Confederation of British Industries and Universities UK (Confederation of British Industry, 2009, p. 8) a positive attitude is seen as the factor underpinning successful employability skills, exemplified by "a can-do approach, a readiness to take part and contribute, openness to new ideas and drive to make these happen".

Employability is more than a good CV. If all we are going to ask students to do is prepare this or something similar, they (and we) are likely to miss the point that employability is more complex and is about the development and special qualities of the individual. Employability is about being more insightful, more experienced, evidencing the development of new and transferable skills, being aware of new knowledge and sensitive to others.

We know that the knowledge which we impart to students will date. We know that the job market will keep changing. Ideally, our students have engaged with a process that will allow them to keep learning, matching demands for new skills and impressing employers with other qualities that make them stand out as uniquely good. The benefits of education should not finish with the qualification. Learning and teaching can be supportive of students becoming independent learners over the longer term and across a wider range of experiences, both 'lifelong' and 'lifewide' learning:

> "The important characteristic of lifewide learning is that it embraces a comprehensive understanding and practice of learning, development, knowledge and knowing and achievement. Lifewide learning includes all types of learning – learning that is developed in formal educational environments which is directed or self-managed, learning that is intentional or unintended, learning that is driven by our interests and its intrinsic value, as well as our needs, and learning which just emerges during the course of our daily activity. To be a competent lifewide learner requires not only the ability to recognise and take advantage of opportunities and the will and capability to get involved, it also requires self-awareness derived from consciously thinking about and extracting meaning and significance from the experiences that populate our lives" (Jackson, 2016, p. 3).

This is consistent with the application of classical reflective models such as Schön (1983) and these (along with Kolb (1984) and Gibbs & Simpson (2004)) are used to underpin the guidance to students when asked to be reflective within the context of assessment across a programme of study, an idea supported by Yorke and Knight (2004) – "Some aspects of employability take time to develop, suggesting that the focus needs to be on employability across a whole programme rather than on individual programme components (modules)." (Yorke and Knight, 2004, p. 2).

The importance of assessment

Assessment means different things to different people - a confirmation of learning, repetition of knowledge, a critical appraisal, a motivator, a form of evidence or a commitment to work hard. Assessment is a measure of performance and can be some kind of challenge (how many students will brag about doing an 'all-nighter'?). It can also provide a measure of self-fulfilment. Assessment may be what others judge you by – seeing you as successful and potentially employable as a graduate. It certainly can do more than just provide marks at the end of a module.

According to Race (2001, p. 3) assessment is "the most important thing that happens to you in higher education". Assessment can be fair, consistent and objective but add little to employability. If courses all offer very similar curricular structure and content (and outcome), how can we expect students to evidence their unique qualities? If assessment becomes a series of standardised tasks like multi-choice tests, examinations that require the application of existing knowledge or a coursework assignment that critically reviews the same case-study, how can a student stand out?

A recent end-of-module review within a Business School asked students what they would like to say about themselves, the outcomes of which would be of interest to employers. The small sample of statements below (Table 1) were typical and shows the awareness of employability and the challenge of assessment is to provide opportunities to evidence this.

Table 1: Students' responses to end-of-module review

I have spoken to a number of managers in the kind of retail outlet of interest to me and they consistently said that ….
To have more business value, these Excel models would need to include …
I know that I could organise this kind of event because …
The video now on YouTube shows my presentation to a group of ….
My blog shows an interest in interior design …

Brown (2004) reminds us that "assessment methods and approaches need to be focussed on evidence of achievement rather than the ability to regurgitate information".

Embedding employability into assessment

The CareerEdge model of employability (Dacre Pool and Sewell, 2007) uses career development learning; experience (work and life); generic skills; degree subject knowledge, skills and understanding; and emotional intelligence as the building blocks. Reflection is important in this model. The ability to reflect will impact on self-esteem, self-efficacy and self-awareness – all of which are scaffolding in the CareerEdge Model of employability (Dacre Pool and Sewell, 2007).

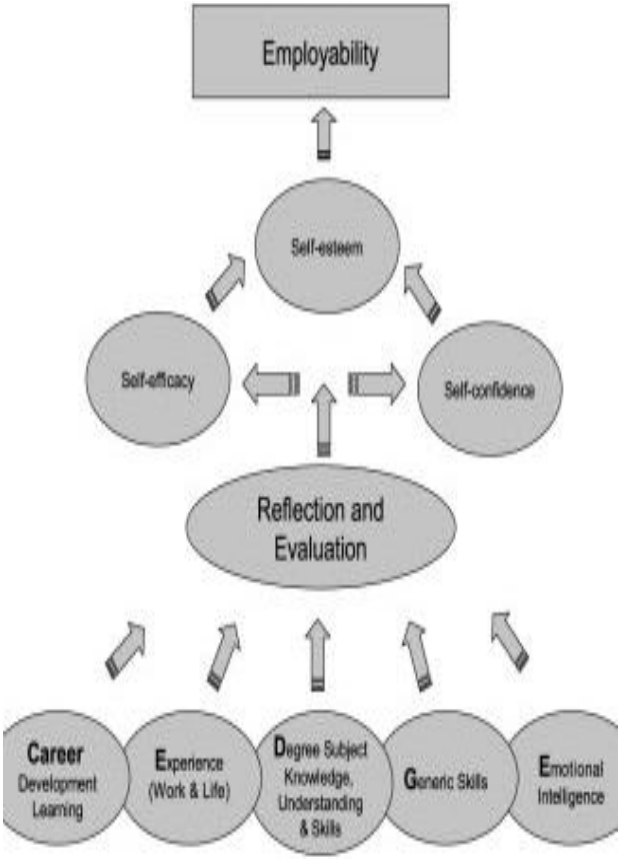

Figure 1 - The CareerEdge Model (Dacre, Pool & Sewell, 2007)

Assessment can be informed by these building blocks, reflection, and evaluation. Examples of how assessment can engage Business School students with the components of the model are given below (Table 2).

As an example, at Birmingham City University, the second year undergraduate module Creative Problem Solving is offered within the business range of courses. The focus of this module is the recognition, definition and redefinition of a problem of importance to the individual student; currently employability. Students are presented with models of the creative problem-solving process and can make a choice about how they proceed. Essentially, students work on their own and in groups, to manage the problem-solving process creatively.

The assessment for this module is to report and reflect upon the outcomes achieved using a 'digital story'. A digital story is a snippet of video that brings together images and voice. Typically, we do not see a nervous individual talking to camera (but a digital story can include some of this) but a story told alongside the richness of pictures. The assessment allows students to enhance their skills in the use of modelling, the management of creative problem solving techniques, producing options and justifying choice as specified by the learning objectives. The assessment also allows the student to demonstrate unintended outcomes such as the imaginative use of video, artist images and insightful fact finding. In this case, the assessment does deliver the engagement with problem-solving skills but also may make a practical difference to student employability.

The recent JISC report (Chatterton and Rebbeck, 2015) identified innovative assessment techniques but found that – "…embedding remains elusive to many institutions. The study has identified some highly creative approaches to developing student employability. For example, the use of digital storytelling to support creative problem solving alongside online simulations and games at Birmingham City University" (Chatterton and Rebbeck, 2015, p. 22).

Model Components	Possible course response	Possible assessment
Career development learning	Find ways for students to become more self-aware, identify things they enjoy doing and motivate them. Explore how such awareness opens career possibilities	Self-promotional, three-minute video. Mock job interviews or assessment centre experience
Experience (work and life)	Guide students in terms of work and wider-life experiences Encourage initiatives like work placement	Business consultancy project with real-life client Assessed placement activity (such as presentation)
Generic skills	Create an audit of these skills as they apply to students on the course Develop an explicit strategy to enhance these skills over the length of the course Ensure skills are also embedded across the range of modules Require students to evidence their development of these skills	Create and share an e-portfolio Additional graduate awards and framework-focused awards (such as HEAR, Lancaster Award and Graduate+) Additional Professional Qualifications (Microsoft Office Specialist) recognised by institution
Degree subject knowledge, skills and understanding	Find ways for assessment to do more than just give a mark Allow students to evidence their subject knowledge and understanding with outcomes and artefacts that can be shown to others	Produce and present a poster Track the performance of an actual company and produce a report Create a digital story uploaded to a social network site
Emotional intelligence	Recognise the importance of emotional intelligence and articulate this for the course Develop policies to enhance emotional intelligence	Peer assessment Create own assessment criteria

Table 2 : Assessment for components of the CareerEDGE model

Providing opportunities for students

As has been pointed out above, it is generally accepted that assessment can be a driver of behaviour for students and staff. If this is going to make a difference to employability, then it will need to inform action at all levels of the institution.

Institutions will need to do more than look at student employment statistics after course completion, which may be acceptably high or unacceptably low for a number of historical reasons. It could be that teaching and nursing courses appear favourable on such measures after a six month milestone but the numbers remaining in these professions drop after one or two years. If we are concerned about employability rather than just employment, then we would need to be reassured that these students remain confident in their skills, knowledge and ability to effectively compete for other graduate-level jobs.

The authors argue that employability cannot be additional to other course content but should be an integral part of the study of a student and that assessment should reinforce the value of this content. This position is no longer seen as radical, being supported by the work of ESECT a decade ago (Yorke and Knight, 2004). Employability should not necessarily be part of all assessment in the same way numeracy should not be part of all assessment, even in a mathematics degree. What is argued is that there is proportionality, and that employability needs a significant presence.

The authors acknowledge that a student will continue to make choices throughout their course of study. A critical factor is engagement, both with the expected course knowledge and the additional opportunities offered. They can choose to be engaged and benefit from a more active, independent form of learning, or choose to be more instrumental in their learning. Assessment may be an important driver of behaviour but it is only one of the many complex factors that can make a difference. At best, assessment can develop the subject insight required and enable the development of skills valued in the workplace. At worst, assessment can be a ritual to show that the lecturer and the students have done their job. Given that assessment does make a difference, the challenge is to design and deliver assessment that meets subject requirements, is supportive of the course as a community and does enhance employability.

Assessment may be a driver of student behaviour but will also make a difference to staff. For example, within the module Creative Problem Solving discussed above the assessment of a digital story was an artefact created by the student. We ask the reader to reflect on their own reaction when assessing a five-minute reflective video in comparison to the feeling that many of us experience when faced with a mountain of near-identical three thousand-word essays.

Addressing the issues of employability within an assessment regime which might be set by university policy is a challenge, but making a course worthwhile for all concerned has always been a challenge. An engagement with employability should mean that students are required to complete assessments that are more meaningful for them and provide ways that demonstrate qualities like a ‘can do’ attitude. For academic staff, the challenge and opportunity is to produce an assessment task which has subject relevance, offers consistency and fairness, and can be motivational for all concerned.

Conclusion

If graduate employment is a major reason for students investing in higher education (Tomlinson, 2008), then courses will have to consider how the skills and knowledge to be achieved make a difference to employability – a view supported by the Association of Graduate Recruiters (Hawkins and Gilleard, 2004). The qualification remains important even if only as a confirmation of course completion. The challenge is to leave the student better prepared for the future. Graduates can be expected to be asked to evidence that they can do the job on offer. Assessment is key. It should confirm learning but it should also highlight individual excellence and uniqueness. Assessment over the course provides students with outcomes and artefacts that they can take forward to employers as evidence of what they can do and that they have a ‘can do’ attitude. Individual modules such as the Creative Problem Solving example above can make a difference but it is the view of the authors that employability needs to be embedded throughout a course. This does not mean that employability begins to dominate all we do but rather that the awareness is there and a proportionate amount of time and effort allocated to it.

The process of becoming more employable as a graduate is an important one and should in itself be motivational to the student. It will give a relevance to the course if it is known that others will value it. Assessment provides a signal to the student of what is valued and the outcomes of assessment are the record of achievement. It is argued here that you need a constructive alignment of assessment with the challenges of

employability. We also argue that given the importance of assessment as a driver of student behaviour, we should continue to push for further added value. This is a challenge but also an opportunity for all concerned. At a time when employers increasingly talk about the importance of a 'work-ready' graduate we should be looking at the totality of the employability challenge and how assessment can make a greater difference.

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