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'leaving a legacy': documentary work in a learning environment

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Abstract

This article contends that the creation of a legacy by students enables them to situate their time and experiences at university within their broader life goals and expectations. Legacy learning refers to the act of creating an archive or artefact for the benefit of posterity; collating, collecting and creating a virtual or tangible article, or *objet*, for successive cohorts to utilise as a learning resource. It is also a tangible product that students may use to demonstrate their skills to prospective employers; something to take away with them from the process of learning. At the heart of the concept are two key factors: collaboration and the process of self-reflection. This article illustrates legacy learning through the examination of a final year module on Asia for which small groups of students had to produce a documentary video and individual self-reflection paper. Although the putative goal of the endeavour was envisioned as the realisation of the documentary itself, the self-reflection exercise by students suggests that the underlying learning value of the exercise may in fact rest in the self-realisation of the learner.

Keywords Legacy learning; self-reflection; assesement; group work

INTRODUCTION

The process of learning within a university context often results in an ephemeral engagement with a text or project. Essays and exams can be quickly forgotten, along with their rapidly revised substantive content. Over the past few years there has been a considerable amount of work to stagger deadlines, vary forms of assessment and to diversify the ways in which feedback is provided (for a critique of assessments, see Coin, 2013). It has also been demonstrated that carefully tailored formative assessment can be used as a means of aiding a student's transition from school to university during his or her first year (Fisher *et al.*, 2011). Moreover, reflecting a more strategic agenda with regard to the inclusion of explicit 'employability factors' within the learning environment, there has been a much greater emphasis on the inclusion of transferable skills within and across modules and programmes (see Pegg *et al.*, 2012). However, less attention has been paid to the goal of enhancing student engagement within the process of learning itself. Ongoing work to introduce feed forward techniques go some way to prolonging and deepening this engagement, particularly through the reiteration and reinforcement of the same feedback over time, giving students the opportunity to revise and re-engage with one piece of work (see Robson *et al.*, 2013: 63). This idea of continuing engagement is also provided in work where legacies can be created, through, for example, the creation of artefacts or video documentaries. This form of assessment offers students the opportunity both to leave something behind for future cohorts to consult or use, and to take something with them as evidence of their skills and interests. As Williams and Smith note in their contribution to this edition, there is now a wealth of evidence to suggest that new kinds of learning environments are being enacted in higher education. At the same

time, however, there remains the problem of 'monologue' teaching and feedback. Whereas they focus in particular on the latter, this article proposes that alternative forms of delivery and ongoing self-reflection enable students to engage critically in their own individual and peer assessment throughout their period of study. The article develops the idea of legacy learning, which is closely associated with the processes of collaboration and self-reflection, and which enables students to keep under review the development of their knowledge, skills and practical capabilities.

The research for the article is based on a pilot project conducted at the University of Birmingham in 2015, with particular reference to a cohort of final year students that I have taught for the past several years and who have been assessed through two 2,000 word essays and one two-hour exam over the year. Feedback from previous years suggested that students were learning substantive information for the topics of their essays, but were given little chance to develop broader ideas and had no opportunity to discuss their findings with other group members. During this first pilot year I retained the first semester essay (worth 30 per cent of the total) and introduced one reflection paper (worth 20 per cent) and one group documentary (worth 50 per cent) in the second semester. The purpose of the change was to facilitate collaboration, develop a broader approach to the topics covered, enhance alternative learning skills (including digital documentary work), and to find ways of ensuring that students were given the opportunity for self reflection. It is with these points in mind that this article examines the ways in which legacy learning enables students to situate their time and experiences at university within their broader life goals and expectations.

LEGACY LEARNING

Legacy learning refers to the act of creating an archive or artefact for the benefit of posterity; collating, collecting and creating a virtual or tangible article, or *objet*, for successive cohorts to utilise as a learning resource. It is also a tangible product that students may use to demonstrate their skills to prospective employers; something to take away with them from the process of learning. As will be shown below, students in the cohort that were tested during the pilot year felt that this was one of the most important pieces of work they had done during their time at university. Moreover, they were immensely proud to submit it for scrutiny and for public dissemination. In work like filmmaking there have been many scholarly assessments of how transferring images from one realm to another benefit learning processes and how collaborative learning is enacted in the process of bringing together so many different facets (Falk *et al.*, 2007). Moreover, in recent years interesting work has emerged – particularly through examinations of the use of technology in the classroom, and through studies of virtual worlds – on the effects of creating artefacts. Girvan and Savage (2010: 344) describe how their application of ‘Communal Constructivism’ provides a focus on leaving a tangible legacy:

Learning artefacts created by one group of learners are fed back into subsequent iterations of the learning task, emphasising the use of past learners and their artefacts to influence the learning experience of future learners. New groups of learners are then able to take part in the same activities, which provide context to the artefacts left by previous groups, and leverage the artefacts to extend their own knowledge.

The creation of the artefact in this way is built upon two fundamental components of legacy learning; namely, collaboration and self-reflection. These two facets lie at the heart of providing a more meaningful and sustained interaction with the very process of learning. Although this article is not focused on the use of technology *per se*, much of the scholarship on technology in teaching also highlights its relevance for addressing the challenges of group collaboration:

Increasingly, changes we notice in the use of technology in daily life may also be observed at work within the walls of the academy — physical walls or virtual. They are breaking down traditional barriers separating academic research from teaching, work-based learning and informal learning.
(Kukulska-Hulme, 2012: 247)

First, collaboration can come in many forms within the classroom; from one-off classroom team debates, to the long-term production of a piece of group work in a variety of forms. Group projects are a popular form of delivering content and assessment in the contemporary university classroom. Literature on ‘collaborative learning’ has been prevalent since the 1980s, and has been refined to focus on the benefits to areas like inter-group relations, self-esteem and academic attainment, particularly in the school classroom (Slavin, 1985: 11-13). By way of example, Shepperd, based in Computer Science, found – albeit anecdotally – that group projects ‘can be powerful agents for change. We have seen much improved levels of engagement by the students and, in our experience, unprecedented levels of coursework submission’ (2011: 8 - 9). Areas such as personal responsibility and peer tutoring in group settings can also enhance deeper learning, enabling students to

digest information fully, in order fully to process what is being learned and even to alter their own view of reality (Thorley and Gregory, 1994: 21). Other studies have shown how ‘peer learning’ within this collaborative environment can enhance a student’s ability to understand and articulate the problem in front of her, as well as to critique others within the group (Boud, 2001: 8). Within scholarship on organisations comes also the idea of project-based learning, with Bartsch *et al.* finding that the social capital acquired in the collaborative learning environment of a project represents a ‘social process in which individuals and groups augment their knowledge’ (2013: 240). Higgins *et al.* (2012: 1052) suggest that:

Research on collaborative learning tells us that groups who build on each other's ideas, engaging in mutually responsive conversation about their task, are more likely to solve problems successfully and learn from the experience.

Group learning environments can assume a number of different forms. Related to the concept of legacy learning, the creation of an artefact as part of the group work experience can further enhance the depth of collaboration, by facilitating the ‘sharing [of] ideas across time and space’ around the enactment of a tangible co-production (Wong *et al.*, 2012: 411). Work by Hakkarainen and Paavola (2007: 1) demonstrates how this format of exposure to group work via the mediation of an artefact facilitates a ‘triological’ approach to learning, which focuses on the creation of ‘shared objects’ and the ‘crossfertilization of knowledge practices’ over a long time frame. The triologic represents the action of knowledge creation through working collectively around an object, simultaneous to the dialogic function of interacting in group discussion and the monologic action of acquiring knowledge in one’s brain (Paavola and Hakkarainen, 2005). The central focus of the object under development, in other

words, forms the catalyst for deeper learning, social interaction, and closer self-reflection. It is to the latter category that this article now turns.

Second, group projects can be regarded as discrete exercises with one-off outcomes, and are not always integrated into the broader process of learning. In order to achieve this end, it is important for assessors to review the progress of students and to comment on their process of production – rather than simply on the end product – and still more significant for the students to become cognisant of their own experiences of engagement throughout the process. In essence, then, I agree with Shepperd's findings that 'our understanding of what students perceive and how they learn has not [been] sufficiently central to the design and delivery of group projects' (2011: 9), and in order to address this gap legacy learning also includes the second dimension of self-reflection.

The work of Lew and Schmidt provides a useful definition of self-reflection, as:

the processes that a learner undergoes to look back on his past learning experiences and what he did to enable learning to occur (i.e. self-reflection on how learning took place), and the exploration of connections between the knowledge that was taught and the learner's own ideas about them (i.e. self-reflection on what was learned) (2011: 530).

It is contended that since processes such as these can lead to informed and thoughtful deliberations on one's behaviours and actions, they are believed to assist learners to become better at self-reflection, which leads subsequently to better academic achievement, by facilitating the development of a meaningful 'personal learning

environment' (Dabbagh and Kitsantas, 2012: 3). Moreover, and as will be illustrated in the case below – this process can lead participating students to believe that they are embarking upon something 'special'. It is, then, largely through the process of self-reflection that students are able to appreciate that they have indeed created a legacy. Self-reflection can, as Dabbagh and Kitsantas find, lead to a 'self-oriented system of feedback,' as participants in a group project work through what they identify as the three stages of goal setting, collaboration and synthesising information (2012: 8). If implemented as part of the earlier years of study (and not, therefore, simply as part of a final year project as I have done), this meaningful engagement with self-reflection can be carried across subjects of study and into the broader creation of life skills during a student's time at university. The following section takes the example of one pilot module at the University of Birmingham in 2015, for which collaboration and self-reflection formed the basis of the exercise and the assessment.

METHODOLOGY

This project saw the implementation of documentary work within an undergraduate learning environment. Between January and April 2015, a final year cohort of 38 students engaged in a new form of assessment on the module *Advanced Modern Asia* at the University of Birmingham. All students had taken the corresponding second year module, *International Politics of East Asia*, to gain a good general knowledge of the region, or else had gained knowledge of the region from other experiences. During this pilot year, the first semester continued to be taught through a well-trodden path of weekly interactive seminars focused on key themes and the production of a 2,000-word essay by December 2014, worth 30 per cent of the module's total marks. Semester 2, however, saw a removal of an essay and exam, in favour of one reflection

paper (1,000 words, worth 20 per cent of the module total) and one six-minute group documentary, worth 50 per cent. With a central focus on the Mekong River, each week retained a lecture on the region and five seminars engaged with substantive content. The remaining seminars were focused on the development of the group documentary. These seminars provided students with technical assistance about using software, obtaining licences and permissions for the use of data and images, how to write storyboards and conduct interviews, and how to ensure that the final product integrated an academic thesis and set of propositions.

Students were divided into six groups and each group was given a theme related to the Mekong: China, the environment, social and environmental justice, trade, energy and hydropower and crime. I intentionally broke up friendship groups and engineered a balance of quieter and more confident students for each group, which had up to seven people. It was up to each group to create a specific question and set of hypotheses; to decide on their *modus operandi* for meeting and (if desired) to divide up the work. I met them on a number of occasions to review their progress, but did not influence their decisions about content, planning or delivery. It was up to each group to decide what ‘collaboration’ meant for them. As will be shown below, some groups chose to share out all the work equally; other groups divided into different roles; and in others particular individuals took a lead at different moments. The documentary would be awarded one mark, which all participants would receive, thereby raising the possibility that some groups might carry free-riders. It should be emphasised that the large majority of students began the semester with no technical knowledge of how to produce a documentary. With the invaluable help of an e-learning specialist in the College, we delivered two one-hour sessions on explaining

the concept of the documentary, at the end of Semester One. Two more specific sessions were delivered at the start of Semester Two, with particular emphasis on assuaging concerns about the levels of technical proficiency required to complete the project. As we stressed that the technical proficiency was worth only ten per cent of the documentary mark, we provided them with a simple formula and package by which to deliver their documentary. The students had ongoing technical support throughout the project. It is worth remarking that none of the groups selected to use only our 'simple' formula, and that all of them became rather ambitious to produce the highest quality technical output. Marking criteria for the documentary were set out explicitly and were based around the following categories:

1. Clarity of aims and objectives (30 per cent);
2. Communication (30 per cent);
3. Presentation of the take home message(s) (20 per cent);
4. How engaging and/or entertaining is the project? (10 per cent);
5. Technical quality (10 per cent).

Given that this was the first cohort, all of the students were very attached to these criteria and ensured that they followed them closely, seeking clarification where they were unsure, so that they delivered what they understood I wanted.

Individually, all students had to produce a weekly log of their experience of working in a group, which would constitute ten per cent of their mark for their reflection paper. The 1,000-word reflection paper itself was to be based on a theoretically informed exposition of their role and the evaluation of their experiences, as part of this group work. Clear instructions were given – on the module web pages and during specific seminars – regarding what was expected from each of them in

terms of producing the reflection paper. They were to identify and utilise theories of reflection within which to situate their analysis, and then to examine different learning styles, to explain their own approach to group-based project work. Specifically, the students were asked to focus on the following three questions:

1. Are your observations consistent with the theory, models or published academic evidence?
2. What was your role in the group and what kinds of challenges did you face?
3. How did you overcome any challenges and/or how would you evaluate your participation in the group?

These three questions formed the basis of the detailed marking grid given to the students and used in my assessment of them.

The main part of the production of the documentary took place between weeks three and eleven of the second semester (January-March 2015). Students then had the Easter vacation to complete their documentaries. During the first week back after Easter, we held a public showing of the documentaries, where all students saw each other's work for the first time and to which a number of external viewers came along. These were colleagues from my department and one colleague from another university. The whole process of delivery, evaluation and feedback was overseen by an independent assessor who distributed questionnaires to all participants and undertook two focus groups and class observations.

FINDINGS

From my point of view as assessor, the six documentaries produced were of outstanding quality and each group received a first-class grade. Overall, students

demonstrated an ability to construct a coherent question and set of hypotheses, and to exemplify them through stills, video-clips, talking heads, interviews, interactive maps and statistics, text and music. One colleague at the public viewing observed that it was easy to forget that these were student presentations, as they could have been made by professionals. The academic content was strong in all of the documentaries, narration and technical editing was overall of a very high quality, and the message that each group portrayed was clear. Given that the students had no prior experience, it was nonetheless the evident that they demonstrated an excellent understanding of the medium and of the brief, delivering strong academic content and highly creative artefacts. The final documentary work was singled out for commendation by the external examiner for the quality of the work and the depth of self-reflection undertaken by the students. The project elicited a number of interesting findings about collaboration and self-reflection from the perspective of the students themselves. During the autumn of 2015, following their graduation from university, I sent the former members of the group a questionnaire to review their participation in this project, to which ten students responded (see Appendix 1). The following findings, drawn from the results of the questionnaires and my own observations of student participation during the module, illustrate the students' approaches to collaboration, their views of self-reflection and what they learned in the process of creating and delivering a piece of assessed documentary work.

First, the six groups embraced the idea of collaboration in a number of ways. They were given suggestions for the types of roles typical project groups might include (such as 'chairperson' and 'scribe'), but they were not required to take a particular approach to the organisation of the group. In general, each group began by

reviewing the secondary literature, having group meetings to finalise the specific question(s) they wished to address, and then either allocated roles for each individual or shared out the labour so that each participant engaged in every phase of the development of the documentary. Different groups applied different approaches: some divided tasks up immediately; others had a freer approach where tasks were not formally assigned, which one student labelled a 'laid back approach' (Student F). According to Student F, this gave all group members the opportunity to 'try something new' during the first few weeks of the project. This idea of mutual skills acquisition is borne out by Student A, for whom collaboration enabled them to 'learn from the ideas of other group members'.. In contrast, one group cast its members into very specific roles, amongst which were narrator, technical editor and producer. For a number of students the process of collaboration was underpinned by the need for effective communication (Student B). For many students the difficulty of timetabling face-to-face meetings was a serious problem, and lapses in attendance were recorded both by those who felt in their weekly logs that they were doing an unfair share of the work, and those who felt that they were being criticised for non-attendance when they were ill or unavoidably absent. Indeed, for Student F, the practical difficulties of working with an international cohort were highlighted by members returning to their home countries during the holiday period, which 'skewed the work effort towards a select few'. In a group where everyone was deemed to be 'diligent and vocal' this mismatch in work allocation was not found to be a problem (Student E). Nevertheless, for most of the students throughout the module and in their questionnaires, face-to-face communication was crucial. The issue of potential free-riding was always a possibility and most groups felt that smaller group sizes would expose any non-performing individuals more clearly. Interestingly, in their reflection papers, some

students who had shown frustration at the lack of commitment by certain others when writing their weekly logs (which turned out for some to be a good place to express their personal views) came to the conclusion that: a) people work in different ways and that the same approach to the project could not be expected by everyone; and b) that a work situation would be likely to involve free riders at times and thus they were engaging in a real-life experience. This was a point that student D reflected upon:

I have managed to somehow avoid group work throughout my whole degree but in future, knowing what I know now, I will be better equipped to have an enjoyable experience moving forward.

Second, these general comments about communication and collaboration were included in the students' self-reflection papers, which, in my view, were the most valuable part of the entire exercise. Most of the students, as requested, employed a theoretical understanding of self-reflection and learning styles, citing, for example: Habermas' (1972) theory of knowledge-constitutive interests; Gibbs' (1988) model of description, feeling, evaluation, conclusion and action; and the Kolb (1984) learning cycle, which divides the process of learning into four distinct areas of concrete experience, reflective observation, abstract conceptualisation and active experiment. Reflection about reflection itself drew out several profound observations about how they regard knowledge. In the questionnaire, Student F reflects on the importance of self-reflection, noting that through the act of writing the paper 'I have come to realise an incredible amount about myself'.

A number of students, such as Student C, felt that this form of learning enabled them to 'focus on the bigger picture when learning, before delving deeper into

intricate details that enrich my understanding of something' others found the process of self-reflection to be rather profound: 'I realised that my overall performance may have been hindered by my desire to 'feel' I was experiencing something' (Student D). In terms of learning styles, a number of students used the opportunity to reflect deeply on their experience. Thus, Student D observed that the written word (VARK) style of learning strengthens the experience of working, whereas Student E. is a visual learner and was therefore drawn towards different areas of the project work.

Several students were highly self-critical, and also reflected on their time at university, beyond this module: 'Group work requires different skills than individual work yet they are skills one needs in life, especially in the work place' (Student E). Student C echoed this sentiment: 'Having different approaches to one topic from various group members is something that is not possible when writing an essay alone or in seminars where the groups are larger and more intimidating and where there is teaching staff present'.

This linkage of the documentary work and their next steps as they are about to enter the workplace was a common thread through a number of reflection papers. For example, Student F noted that this project enabled them to gain important transferable skills; whilst Student E noted that this project would enhance their CVs and enable him/her to become a 'credible candidate for future job opportunities'. Finally, Student B noted that 'Ultimately, the experience was a learning curve and enabled me to challenge my conventional approach to learning'.

This idea of employability became an important thread through the production of the documentary. To begin with, the final *objet* was to be placed in the public domain and presented at a public event. This gave students a different initial goal and aim. As a group, we also talked about the ways in which this *objet* could be attached to an online CV, for students to explain their individual role, explain the challenges they faced and how they overcame them.

Finally, although the technical side of the project represented only ten per cent of the final mark for the documentary, students found this to be the most intimidating and challenging aspect of the project. Other students requested additional training – and reassurance – with regard to the technical aspects of the work, and at times the flow of the process was hindered by their initial inability to overcome their fears in this regard. For some students the phase of putting together the documentary was associated with one individual, as it was impossible for all participants to gather around the computer at once and input editorial decisions. Many of the students remarked that it was difficult to work as a team when they were squashed around one person's laptop. This gap in the collaborative learning process will be discussed below. Overall, it is fair to suggest that most of the students on this module felt that they were challenged and pushed in new ways, and gained a greater knowledge of their individual strengths and weaknesses within a collaborative group environment.

SOME PRELIMINARY REFLECTIONS

In my view, the introduction of a documentary worked extremely well on the levels of legacy learning and self-reflection, and I believe that legacy learning could occupy a significant place in the delivery, assessment and feedback of higher education across a

range of disciplines. It was clear from their commitment to this project, and their comments in their own reflection papers, that most students felt as though they were engaged in a meaningful endeavour. Indeed, a common feeling was that they would leave something for posterity and that they would carry this piece of work into their job-seeking activities. In future iterations of the module it is my aim to make much more of the public performance of the documentaries and to invite more external viewers to come and see what the groups have produced. There was a genuine tension and nervousness when everyone came in to the room for the public showing, when they chose not to sit with their friends but in their groups, and as they waited to see what everyone else had produced and how their own work would be regarded by the others. Given the complexity of marking such an assessment, in future years I would give our 'panel of judges' a clear steer as to the marking criteria to ensure that they are able to comment in depth on each documentary. This verbal feedback occurred organically this year, but it did mean that the last group received far more feedback than the first one, as everyone picked up repeated themes about academic content and technical delivery.

In reflecting upon these points as a whole it is evident that the tentative conclusions that have been presented here require both further investigation in terms of the adaptability of this method of assessment as well as more in-depth analysis with regard to the impact of legacy learning in higher education. Nevertheless, it might be useful to draw a number of preliminary findings from this experience for colleagues across a range of disciplines and year cohorts, to enhance ongoing discussions about how best we can integrate collaborative learning and self-reflection into what we

teach and how we assess our students, and how we might introduce legacy learning throughout the curriculum.

In the first instance, the research findings highlight that collaboration is interpreted differently within the student cohort and responses to the collaborative task fundamentally depend on one's own learning style. For effective collaboration to occur, individuals need to understand and define the different characteristics of the task and match their own roles to the ways in which they work. Where new challenges require them to work beyond existing capabilities and to learn new skills, they need to feel supported by their group and by the facilitator of the activity. The time-scale for collaboration also needs to be clarified, with the recognition that individual participants may have a more or less active role in the group at a particular moment. In addition, during an inherently collaborative experience, it may seem self-evident that students will learn how to collaborate. However, it is clear that students need to be given direction, training and expectations as to what they should be able to achieve prior to the commencement of the project, which may require additional teaching assistance and technical support. Moreover, and as shown above, there was certainly some reflection about how to divide roles within a team, to deal with non-performing participants, to experience the process of coming together to create a joint *objet*, and to deliver a final product as a jointly created enterprise. However, the technical aspects of the project were inadequate on two levels, and in some ways they placed a barrier to the greater collaboration, particularly towards the end of the project cycle. A number of students expressed frustration at the difficulties of achieving practical cooperation, particularly when working around one small laptop. Beyond the remit of this current article, one area for further development is the advancement of teaching

technologies, such as touch tables.¹ Touch table technology enables small groups of students to work together around a larger table to access information and to develop new materials to add to the resources in front of them (see Mercier and Higgins, 2014). Thus, touch tables add the capability for the *simultaneous engagement* with the materials and technical apparatus by all users by creating a joint problem space, enhancing learning through visualisation, and engaging with materials in novel ways to elicit deep learning. To this end, for the further development of technology in teaching to be effective it is essential that the role and practical application of collaborative learning be addressed.

The second key point was that the process of self-reflection was the most revealing and successful aspect of creating the documentary. It was moreover notable from the comments that a typical university experience – at least in this institution – does not involve a significant amount of active self-reflection. Students engaged with this process on two levels. First, they identified, read and absorbed literature on reflection *per se*, giving them, in many cases, their first opportunity to consider the value of thinking deeply about the tasks that had been set and how they approached them. This component of self-reflection is fundamentally about providing students with the intellectual apparatus to evaluate academically their individual performance within and across modules. Second, most of the students on the module also identified their own particular learning styles and were able to articulate how they would alter their strategies in a future working environment to work effectively as part of a team. In so doing, they presented a sophisticated analysis of their participation in this project, and an active consciousness about the transferability of skills for their imminent job-hunting was also clearly stated. Self-reflection need not be limited to

discrete activities, and students would benefit – perhaps through their encounters with personal tutors – from gaining a more sophisticated understanding of their pathway through learning and integrating their individual experiences within modules with their appreciation of the whole process of obtaining a degree. The illustrated case above suggests that many students lack this opportunity. The building blocks of collaborative learning, moreover, can only be fully appreciated in the active process of self-reflection, which provides students with the opportunity to look back over the duration of the project and to assess their initial responses in light of subsequent events and behaviour.

In summary, legacy learning offers a valuable transferable tool for expanding collaboration and a meaningful locus for self-reflection. It is evident that these two facets represent two sides of the same coin. Collaborative work holds significant value for personal and professional development only once it has been subjected to an ongoing period of scrutiny, permitting an individual to reflect not only on his or her learning style, but also on whether and how s/he possesses the ability to alter behaviour in response to particular group dynamics. Similarly, self-reflection appears to work effectively where clear goals (such as a group project) are set out, where there is an ongoing and regular opportunity to build upon or challenge previous findings, and where it is possible to offer a personal statement linked to an *objet* of endeavour, which can then provide tangible evidence of the experience of reflection. In an era of technological change, new student expectations and changing expectations regarding the very purpose of higher education, it is apparent that legacy learning could offer a valuable tool for the student experience of the future.

Appendix 1: Questionnaire

The questionnaire posed the following:

- 1) Based on your experience in the group project, how would you describe your learning style?
- 2) Did you expect to have this particular approach to learning?
- 3) Did your learning style change as a result of the group work? If yes, please explain in what ways.
- 4) Did you have a particular role in the group?
- 5) If yes, how were roles decided?
- 6) If no, did your group make a conscious decision not to allocate specific roles?
- 7) How would you compare your experience of this form of group work with other forms of learning you experienced throughout your degree.
- 8) Please feel free to add any general comments or cite your self-reflection paper.
- 9) Do you give permission for me to cite your answers anonymously in a peer-reviewed journal article?

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References

Bartsch, V., Ebers, M. and Maurer, I. (2013) 'Learning in Project-Based Organizations: The Role of Project Teams' Social Capital for Overcoming Barriers to Learning', *International Journal of Project Management* 2 (31): 239-51.

Boud, D. (2001) 'Introduction,' in D. Boud, R. Cohen and J. Sampson (eds.) *Peer Learning in Higher Education*, New York: Kogan Page Ltd, pp.1-20.

Coin, F. (2013) 'Turning Contradictions into Subjects: The Cultural Logic of University Assessment', *Knowledge Cultures* 1(4): 142–66.

Dabbagh, N. and Kitsantas, A. (2012) 'Personal Learning Environments, Social Media, and Self-Regulated Learning: A Natural Formula for Connecting Formal and Informal Learning', *The Internet and Higher Education* 15(1): 3-8.

Falk, J.H. (2007) 'Toward an Improved Understanding of Learning from Museums: Filmmaking as Metaphor', in J.H. Falk, S. Foutz and L. Dierking (eds.) *In Principle, In Practice: Museums as Learning Institutions*, Lanham, MD: AltaMira Press, pp.3-16.

Fisher, R., Cavanagh, J. and Bowles, A. (2011) 'Assisting Transition to University: Using Assessment as a Formative Learning Tool', *Assessment & Evaluation in Higher Education* 36(2): 225-37.

Gibbs, G. (1988) *Learning by Doing*, London: Further Education Unit.

Girvan, D. and Savage, T. (2010) 'Identifying an Appropriate Pedagogy for Virtual Worlds: A Communal Constructivism Case Study', *Computers and Education* 1 (55): 342-9.

Habermas, J. (1971) *Towards a Rational Society*, London: Heineman.

Habermas, J. (1972) *Knowledge and Human Interests*, trans. Jeremy Shapiro, Boston: Beacon Press

Hakkarainen K. and Paavola, S. (2007) 'From Monological and Dialogical to Trialogical Approaches to Learning'. Paper presented at the international workshop *Guided Construction of Knowledge in Classrooms*, available at http://escalate.org.il/construction_knowledge/papers/hakkarainen.pdf, accessed 22 September 2015.

Higgins, S.E., Mercier, E., Burd, L. and Joyce-Gibbons, A. (2012) 'Multi-touch tables and collaborative learning', *British Journal of Education Technology* 43(6): 1041-54.

Kolb, D. A. (1984) *Experiential learning: Experience as the source of learning and development* (Vol. 1), Englewood Cliffs, NJ: Prentice-Hall.

Kukulka-Hulme, A. (2012) 'How should the higher education workforce adapt to advancements in technology for teaching and learning?', *Internet and Higher Education* 4(15): 247-54.

Lew, M.D.N. and Schmidt, H.G. (2011) 'Self-Reflection and Academic Performance: Is There a Relationship?', *Advances in Health Sciences Education* 4 16: 529-45.

Mercier, E. and Higgins, S.E. (2014) 'Creating Joint Representations of Collaborative Problem Solving with Multi-Touch Technology', *Journal of Computer Assisted Learning* 30(6): 497-510.

Paavola, S. and Hakkarainen, K. (2005) 'The Knowledge Creation Metaphor – An Emergent Epistemological Approach to Learning', *Science and Education* 14(6): 535-57.

Pegg, A., Waldock, J., Hendy-Isaac, S. and Lawton, R. (2012) *Pedagogy For Employability*, York: Higher Education Academy.

Robson, S., Leat, D., Wall, K. and Lofthouse, R. (2013) 'Feedback or Feed Forward? Supporting Master's Students through Effective Assessment to Enhance Future Learning,' in J. Ryan (ed.) *Cross Cultural Teaching and Learning for Home and International Students*, London: Routledge, pp. 53-68.

Shepperd, M. (2011) *Group Project Work from the Outset: An In-depth Teaching Experience Report*, available at <http://v-scheiner.brunel.ac.uk/bitstream/2438/5005/1/Fulltext.pdf>, accessed 2 June 2015.

Slavin, R.E. (1985) 'An Introduction to Collaborative Learning Research,' in R.E.

Slavin, S. Sharan, S. Kagan, R.H. Lazarowitz, C. Webb and R. Schmuck (eds.)
Learning to Cooperate: Cooperating to Learn, New York: Springer, pp. 5-16.

Thorley, L. and Gregory, R. (eds.) (1994) *Using Group-Based Learning in Higher Education*, London: Kogan Page Ltd.

Wong, L.-H., Chen, W. and Jan, M. (2012) 'How Artefacts Mediate Small-Group Co-Creation Activities in a Mobile-Assisted Seamless Language Learning Environment?', *Journal of Computer Assisted Learning* 28: 411–24.

About the Author

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Key Quotes

1. 'this article proposes that alternative forms of delivery and ongoing self-reflection enable students to engage critically in their own individual and peer assessment throughout their period of study'. (p.3)
2. '...the creation of an artefact as part of the group work experience can further enhance the depth of collaboration'. (p.6)

3. 'One colleague at the public viewing observed that it was easy to forget that these were student presentations, as they could have been made by professionals'. (p.12)

4. '...most of the students on this module felt that they were challenged and pushed in new ways, and gained a greater knowledge of their individual strengths and weaknesses within a collaborative group environment'. (p.16)

5. '...the process of self-reflection was the most revealing and successful aspect of creating the documentary'. (p.19)

6. 'legacy learning offers a valuable transferable tool for expanding collaboration and a meaningful locus for self-reflection'. (p.20)

¹ For an explanation of touch table technology, please go to <http://encyclopedia2.thefreedictionary.com/multi-touch>