The *Padlet* Project: Transforming student engagement in Foundation Year seminars

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Introduction

How do we get students to engage more actively with the material they are learning? This was the primary question for us when teaching a cohort of Foundation Year Psychology undergraduates at University of Sussex. In traditional seminars, one or two more confident students often dominated discussion, whilst many of the more reserved individuals failed to contribute – even when prompted, they were reluctant to speak up. Others, perhaps having not completed the preparatory tasks for the seminar, also remained quiet, but for a different reason: they could not make meaningful contributions. The role of the tutor became increasingly a case of 'sage on the stage', with students looking to the tutor for guidance and dissemination of knowledge about the key readings they should have been working on. The *Padlet* Project was designed as a response to this, moving the focus from passive presence to active collaboration. All students, by the very nature of the project, were actively involved in each seminar and the quality of the resulting products exceeded all expectations.

Literature review

According to Hu and Kuh (2001), engagement refers to *"the quality of effort students themselves devote to educationally purposeful activities that contribute directly to desired outcomes."* It correlates with student satisfaction (Kuh and Vesper, 1997), improved grades (Tross, Harper Osher and Kneidinger, 2000) and practical competence and transferability (Kuh, 1993, 1995). Indeed, Bovill, Cook-Sather and Felten (2011) believe it to be a central requirement for success in higher education (HE). No wonder, then, that student engagement has become an increasing focus for many HE institutions. However, it has become ever more apparent that the traditional teaching approaches used in these institutions areas support the assessment of learning outcomes rather than student engagement (Cotterill, 2015). They also often lead to a sense of alienation, as defined by Mann (2001) in her 'alienation or engagement' proposal. Alienation refers to a situation in which a student feels isolated from the rest of the learning group. In re-thinking the development of effective learning environments, Cotterill proposes that we should be focusing on inspiring and motivating students to learn and this necessitates the creation of effective learning relationships within each seminar group.

One suggestion for how to achieve this is Chaijaroen and Khanjack's (2008) approach. Rather than transmitting knowledge, the focus for educators in HE, they argue, should be on construction of knowledge. If the emphasis is on the simple transmission of knowledge, then students are likely to interpret learning as simple rote learning of facts for an assessment, information to be forgotten soon after. If this is the learning that takes place, then there is little hope that students will be able to apply this to novel real-world contexts that are new to them.

Spiro *et al.* (1992) believe such an experience oversimplifies information, leading to surface learning, and Risjord (2010) points to how it omits qualities such as critical thinking and reflexivity, both deemed essential for some career paths. Moreover, the traditional lecture-seminar approach often devolves into what Davies (2014) describes as a session *"frontloaded"* by information dissemination followed by *"didactic"* explanation with little opportunity for students to engage with the material in a meaningful way.

The question that arises from this, then, is: How do we engage students in a way that facilitates high levels of engagement in their learning? Jankowska and Atlay (2008) have explored the use of creative space to improve student engagement. Collaboration, they argue, and the ability to interact with learning are fostered by a sense of novelty and surprise. Fink (2003) has proposed similar ideas, in which active learning is advocated as enabling students both to experience learning and to reflect on what they have learnt and just how that has been achieved.

The advent of multimedia tools has not seen a concomitant exploration of their potential to transform seminar teaching. However, as Jonassen *et al.* (2008) recommend, their use, if effective, should be in terms of actively engaging the learner with the material rather than of just substituting traditional methods.

There have been various attempts to integrate the use of multimedia into seminar teaching. Davies (2014) reported an *"overwhelmingly positive"* experience for students when using iPads in seminar sessions. Nursing students were able to record thoughts on interactive whiteboards, annotate presentation slides and upload their work to a wiki site. Salaber (2014) used wiki-based activities with students on a postgraduate international management course and similarly reported positive facilitation of student engagement and collaboration. Baildon, Lin and Chia (2016) successfully used an online Critical Web Reader in conjunction with *Padlet* to develop conceptual understanding in a social studies class. *Padlet* (padlet.com) gives students the opportunity to post responses, images and a range of other multimedia content to an online noticeboard. Students can then access this at any point during or after the seminar. This not only enabled tutors to develop students' analytical skills in evaluating sources – it also encouraged students to respond to each other's ideas and inform their own responses.

This study used *Padlet* to transform traditional seminar-based teaching into an active collaborative experience.

Methodology

The '*Padlet* Project' was conducted with 70 Foundation Year undergraduates studying the Foundations in Psychology: Organisational, Social and Applied Psychology (OSA) module at University of Sussex.

For each seminar, students were required to read a key paper for discussion. Seminars were held once a week throughout the term and lasted for fifty minutes. Autumn term seminars were conducted using the traditional method, with students sitting around the room and contributing to a group discussion. The tutor's role was primarily to lead the discussion, directing questions to students as appropriate and challenging their thinking by asking them to apply their

understanding to real-world topical problems. For example, having considered a paper by Kuo and Sullivan (2001) on how the environment can influence crime, students were asked to discuss how they thought this knowledge could be used to develop a run-down estate in Manchester.

In the Spring term, the *Padlet* Project was initiated. In each seminar, students were randomly grouped in pairs or threes and the forty-eight hour challenge began. The aim was to get each group to produce a *Padlet* post related to the reading for that week. The members of each group were asked to decide whether there was anything in the papers that they had not understood. If so, they would be producing a 'consolidation' *Padlet* post. Consolidation *Padlet* posts help students to clarify, revise or deepen their understanding of the key readings. Examples might include: producing a short quiz identifying those aspects they were unsure of, thus helping them to work on using the information in a different way; an infographic requiring them to precis the key points of the paper; or an animation requiring them to tell a story with the points from the paper. They could summarise the whole paper in the post or focus on a specific aspect – such as the terminology used or a single section (e.g. the method of the study). If all members of the group had understood the paper, however, they would be producing an 'extension' *Padlet* post. An extension post enables students to move beyond the key reading to explore the research area more widely. Such posts might involve students' linking to an interesting article that contradicted the claim of the key reading, devising a short research task that related to the key reading or developing their own response to the key reading.

Students were given just five minutes to finalise their decisions about what type of post they would be making and at which point; they were then asked to select a form of multimedia to enable them to post their work on the *Padlet* board for that week. A list of options was provided for students which began with three possibilities: a YouTube video (youtube.com), an AudioBoom podcast (audioboom,com) or a Flipboard magazine (flipboard.com). As well as the tutor, a member of the Technology Enhanced Learning (TEL) team was present for the initial seminar in the Spring term to provide additional support for students in making their posts. Students were encouraged to work alongside the tutor and members of the TEL team to add to the list of possible multimedia applications that could be used as the term progressed, extending the collaboration beyond just peer-to-peer learning.

Students were encouraged to work effectively in the seminar to try to complete their multimedia post while the tutor was present to support them. However, for the more ambitious posts, which required a longer time to complete, students could take up to forty-eight hours to complete and upload their work. After this time had passed, students were asked to look again at the *Padlet* wall and comment on at least one of the posts their peers had uploaded, asking either a discussion question or raising comments about the reading itself.

The *Padlet* walls remained active right through the term and into the assessment period, so that students could access it and make use of it in preparing for the examination at the end of term.

During the assessment period at the end of each term, students sat a fifty-question, multiple-choice examination which assessed their understanding of the key readings across the term. To

assess the effect of the *Padlet* Project on attendance and achievement, performance on the OSA module was compared to performance on an analogous module which ran for the same length of time and had the same method of assessment (including the same number of multiple-choice questions). This will be referred to as 'the control module'.

Presentation/discussion of the data

The *Padlet* Project transformed all students from passive listeners into active producers of multimedia content. The quality of their posts was beyond expectations and many students explored new multimedia applications which they then fed back to the tutor. The list of possible applications, that began with three ideas on it, amassed over thirty different ideas as a result of the collaboration between the students, the tutor and the TEL team.

To assess the effectiveness of the *Padlet* Project more formally, students were asked to complete an end-of-module survey. Performance on the exams in the Autumn and Summer terms was compared and attendance measured across each term.

a. Survey responses

Fifty-three per cent of those who responded to the survey rated the module as either 1, 2, or 3 on a scale of 1-10 where 1 was 'fantastic' and 10 was 'awful'. 41% thought that the seminars in the Spring term were better than in the Autumn term and a further 21% stated that they liked them just the same. Students reported finding the Spring term seminars more engaging and interesting than seminars on other modules. The opportunity to make decisions about how to develop their understanding was seen as a particular strength:

> *"I like the fact that it is really dynamic and that we can run it as we want. I really enjoy the possibility to exit our comfort zone."*

Perhaps, the most striking feedback was the effect the *Padlet* Project had on social interaction in the seminars. Many students pointed to how the *Padlet* Project had enabled them to feel more comfortable talking to each other about the work in smaller groups:

> *"I like how interactive it is, talking to different people each week and making a form of revision."*

or

> *"I like the fact that we all have an input into giving more information around the topic."*

Those comments that were less positive pointed to the paucity of discussion arising from the *Padlet* Project. Despite much encouragement to do so, students were reluctant to post comments on the posts of other groups:

> *"You can't really discuss things as it's hard to reply to other people."*

b. Exam performance

Performance on this module – a comparison of Assessment Period 1 (at the end of the Autumn term) and Assessment Period 2 (at the end of the Summer term) – was compared with the same exercise for the two assessment periods of a parallel module ('the control module') that all of the students sat. Both modules used a similar fifty-question multiple-choice exam format. The only difference was the content. A paired samples t-test suggested that performance was significantly different between Assessment Period 1 and Assessment Period 2 for both the OSA module and the control module:

OSA: $t = -2.026$, $df = 70$, $p < 0.05$;

the control module: $t = 2.015$, $df = 70$, $p < 0.05$.

However, closer inspection indicated that this effect was expressed differently for the two modules.

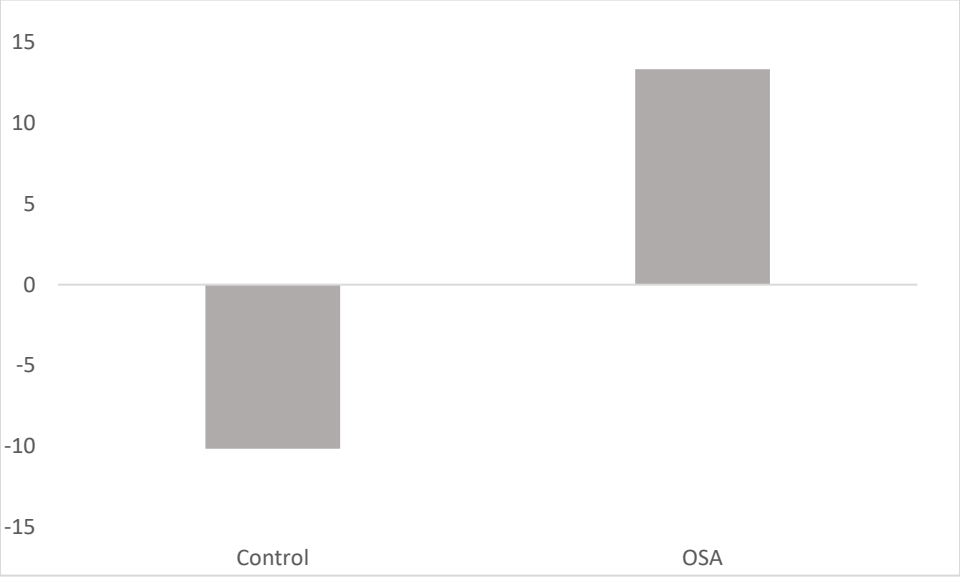

Figure 1: Average difference in exam performance from Assessment period 1 to Assessment period 2 in both the OSA module and the control module.

In the OSA module, on average, improvements of 13% were made between Assessment period 1 and Assessment period 2. In the control module, an average of 10% decline in scores was observed. Although scores were significantly different between the time points, this was owing to a significant improvement in the OSA module but a significant decline in the corresponding control module. To test this statistically, the difference between performance from Assessment period 1 to Assessment period 2 was calculated for each student. A paired samples t-test was used to show that the differences obtained were significantly different for students in each module: $t = -12.072$, $df = 70$, $p < .01$.

c. Attendance

As for the exam performance measure, attendance was measured for both the module which used the *Padlet* Project and the control module that all students sat through the same term.

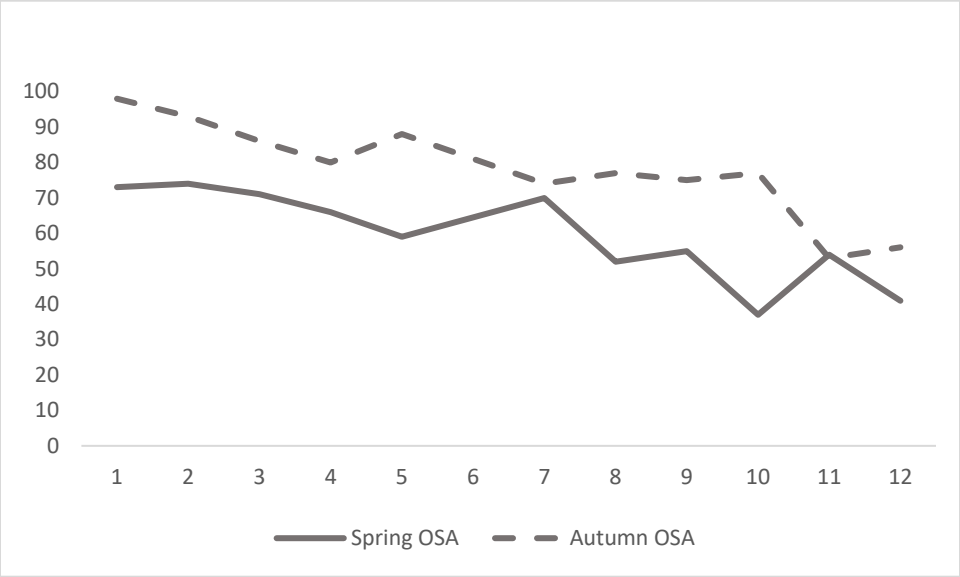

Figure 2: A comparison of attendance across the Autumn term and across the Spring term for the OSA module.

Attendance seemed to be significantly lower across the Spring term compared to the Autumn term: $t = 6.506$, $df = 10$, $p < 0.01$. As Figure 2 illustrates, however, attendance began at a lower level for this module from week 1 of the Spring term. Therefore, it is possible that this pattern is one replicated across other modules and reflects lower attendance generally across the Spring term. To test this possibility, the attendance of the same students on the control module was assessed.

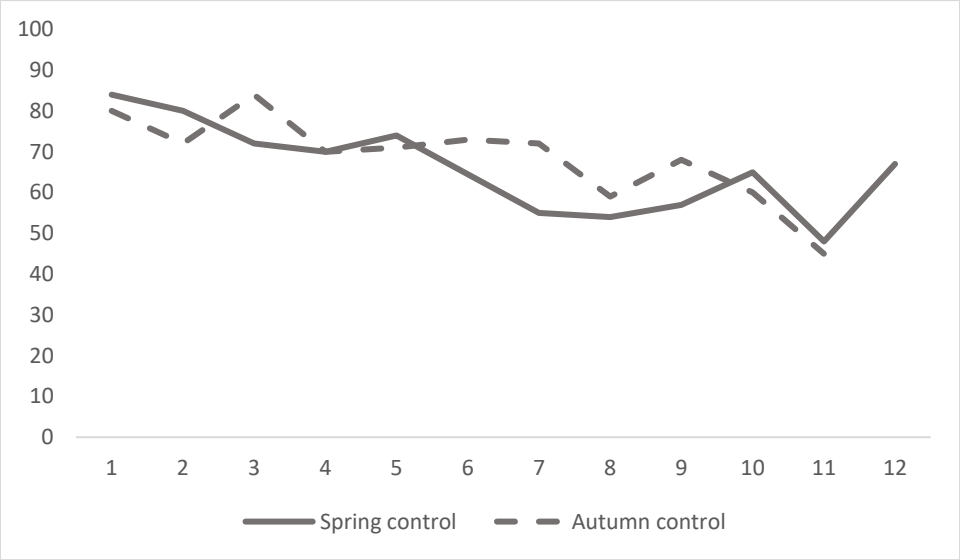

Figure 3. A comparison of attendance across the Autumn term and across the Spring term for the control module.

As Figure 3 illustrates, attendance on the control module was similar across both terms and this was shown statistically with no reliable difference between the two terms:

$t = 0.701$, $df = 10$, $p > .499$. Data was not available for week 12 of the Spring term for this module.

Analysis of the data

As reported by Salaber (2014) and Baildon, Lin and Chia (2016), the use of digital tools to aid deeper levels of understanding proved largely successful. The strengths of the *Padlet* Project were two-fold: not only did it promote social interaction within each seminar group, but it also had a significant impact on examination scores at the end of term. Students appreciated the opportunity to get to know other members of the seminar group in a more informal context than had previously been the case. By getting them to work with different people each week, they were moved out of their comfort zone and were encouraged to participate and contribute more actively.

The weaknesses of the *Padlet* Project, similarly, are two-fold. In terms of attendance, this paints a far less positive picture. However, we believe that this represents a 'no-place-to-hide' effect. With the *Padlet* Project, it is imperative that students have read the paper before they come along to the seminar. Their not having done this creates resentment amongst the rest of the *Padlet* group and this peer pressure creates an uncomfortable situation. It is possible that, rather than experience this, these students just do not attend. If this is the case, this should be seen in a positive rather than negative light as it emphasises the way that the *Padlet* Project promotes independent learning. Responses to the survey did in fact indicate that this was the case, for a number of students commented on how the project had made them engage with the reading more than the traditional seminars had done.

In terms of discussion, students were very reluctant to discuss their responses to the *Padlet* Project. Where comments were posted, these tended to be very low-level comments such as *"Brilliant"* or *"This is very interesting",* rather than anything that involved more analytical thought. In response, the *Padlet* Project has now moved into a new phase. A fortnightly cycle of *Padlet* posting, followed by team-based learning exercises, is being trialled. Whilst the *Padlet* posting week will enable students to clarify, deepen and extend their understanding of the key reading, the team-based learning encourages discussion between peers.

Conclusions

The *Padlet* Project was developed as a response to the problem of lack of engagement in traditional seminars on a Foundation Year Psychology module. By asking students to work in small groups to produce a multimedia post (for a *Padlet* wall) about the key reading, engagement was significantly enhanced, leading not only to a significant improvement in examination scores but also to better social interaction within the seminar groups themselves. Although attendance was negatively affected, this is interpreted in terms of the no-place-to-hide effect, demonstrating the impact of the project on students' preparation. The *Padlet* Project, by

its very nature, could be transferred to any context where traditional seminar structure has historically been used.

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