The University of Manchester
Institute of Teaching and Learning

DR. JEN MCBRIDE

WATCH WITH ME – BLENDING THE SYNCHRONOUS WITH THE ASYNCHRONOUS

ITL FELLOWSHIP 2021/22

PROJECT REPORT

ITL Fellow 2021/22
JEN MCBRIDE

Dr Jen McBride is a Senior Lecturer (teaching and scholarship) in Cognitive Neuroscience and Psychology in the Faculty of Biology, Medicine and Health (FBMH). Jen's academic background is in cognition – specifically in attention, memory, and behavioural control – and she has a long-standing interest in using our understanding of cognition to enhance our teaching. Jen is also particularly interested in the social landscape in HE teaching, and how this contributes to teaching, learning, and sense of belonging in our students. Jen is now (since September 2022) the FBMH Associate-Dean for Teaching Excellence and Student Outcomes, and is a Senior Fellow of the Higher Education Academy (SFHEA).

Fellowship Student Partner Intern
LAURA-RALUCA PASCA

COME WATCH WITH ME: BLENDING THE SYNCHRONOUS WITH THE ASYNCHRONOUS

ITL Fellowship project

Building on a successful trial of "watch-parties" in online teaching, this project sought to establish the critical – and causal – factors which best promote effective learning, student engagement and community in different flexible and blended learning environments. This project evaluated the effectiveness of flexible and blended learning in different contexts, and created a broader framework to optimise our flexible and digital learning practices which brings together the very best of online and in-person teaching.

Context

The move towards more online and blended learning – expedited by the Covid-19 pandemic – meant it was really important to create effective learning, student support, and community of learners in a more digital landscape. Disentangling and weighing the evidence for the effectiveness of online vs. blended vs. in-person learning is something of a challenge! The reasons for this are likely to be confounded by several factors including learners' individual circumstances, the topic being taught, and the teaching activity. Meanwhile, online learning seems to provide a more inclusive learning space where learners feel better able to contribute anonymously, but perhaps only for particular groups of learners (e.g. neurotypical students). While the traditional in-person lecture may no longer be the default in the post-pandemic "new normal", there is good evidence in the pedagogical literature that students really value the traditional on-campus lecture. This might seem counterintuitive as a traditional lecture cannot be paused or sped-up the way pre-recorded content can, and the reasons for students' valuing traditional on-campus lectures are not clear. Indeed much of what I know about attention, learning, and memory from my day-job tells me that large lectures might not be the optimal way to encourage students' learning and engagement.

I have suspected for some time that part of the reason for the inconsistent effectiveness of different teaching formats might be socially driven, and that having students learn together online might unlock the added value the traditional on-campus lecture holds for learning, engagement, and creating a community of learners. So in 2020-21 I trialled a "watch party" format; students came together at the same time online (but were physically separate) to watch pre-recorded videos, streamed live, and discuss them in an online "chat" textbox (facilitated by a member of staff). My goal in doing so was to enhance learning, create a community of learners, provide opportunities for interaction with staff and fellow-students that arose organically, while also providing the advantages of online learning and protecting the learning of students who could not attend a live event (videos

were pre-recorded and were made available for viewing at any convenient time). The trial was really successful – I've never had such positive feedback from students! But the reasons why it was so successful, and whether it would translate to other topics/cohorts, was not clear from the initial trial.

Objectives of the Fellowship project

The project aimed to build on the success of the watch party trial, and to establish the critical – and causal – factors which best promote effective learning, engagement, and build a community of learners in different contexts as we move to a more blended and digital approach to learning.

I had the following objectives for the project when it began (but these changed!):

- To determine the causal factors that are most critical in the delivery of effective, flexible online learning. For example: What formats are most effective for different subjects/activities? What social contexts (synchronous and asynchronous) are most important for effective learning and student engagement?

- To identify those teaching activities that should be prioritised for in-person on-campus delivery in the move to blended learning, as providing the genuine gains in learning effectiveness, student support, engagement, and/or community.

Activities

Review the literature on the role of social cognition in learning, and review software options available for delivering learning in different conditions

Learning often occurs in a social context but this review of the literature showed little work examining the effects of learning in a group relative to individually (the literature focussed on the roles of observing others demonstrate a skill, or group-learning by collaboration such as team-based learning or problem-based learning approaches, rather than examining the social context per se). I had used Zoom as the software in the initial pilot, but it became clear that using Padlet to provide the chat box platform added significant functionality (such as embedding into the Blackboard VLE, and the ability to "like" others' posts) so we piloted this during the fellowship project.

Conduct controlled experiments to tease out the causal factors that led to the success of the "watch party" format

We designed and created different formats for teaching sessions – all with the same content to keep this variable constant (most previous work in this area either allows learners to choose their preferred format, or varies the learning content, both of which are likely to introduce biases and confounding factors) – and delivered these to student volunteers. This enabled us to assess the effectiveness of each format for learning and community building. Together with my final year project students, we designed five different learning formats to empirically test their effectiveness for learning, as well as learners' perceptions of them. These were:

- Traditional in-person large-group lecture
- In person, synchronous, "watch party", with additional chat box available on the screen for learners to ask questions and chat in real-time
- Online, synchronous, "watch party"

Activities (cont.)

- Online, synchronous, "watch party" with an online chat box available for learners to ask questions and chat in real-time
- Asynchronous online materials for learners to work through at their own pace

These were chosen to allow us to tease out the relative contributions of three factors to students' learning and perceptions:

1. modality (online vs. in-person)
2. pace (synchronous vs asynchronous)
3. social-interaction (with/without interaction via the chat box).

We created the materials for each, and secured ethical approval to collect data from undergraduate participants.

Focus groups

We conducted focus groups with students from all three faculties to establish their priorities for effective online teaching to identify the key comparisons and variables in (a) effective online learning; (b) creation and maintenance of engagement and effective community (e.g. direct/indirect social interaction with peers, interactions with staff, etc.). And (c) how/whether these varied according to the topic being taught, or type of session.

As a Business student based in the Faculty of Humanities, Laura (my student partner) had some experience of quantitative and qualitative data analysis already, and this was a great opportunity for her to grow those skills. Laura analysed some of the data from the controlled-experiment arm of the project and co-developed the focus group questions and schedule. It was great to work on this together with her key student's eye-view of the different learning modalities.

Challenges faced

Although Covid lockdowns were easing by the time the project began, Omicron emerged along with limits on what in-person experiments and focus groups were allowed. As a mum to two children aged 7 and 4 this also meant juggling home schooling with full time work, catching Covid and numerous other nursery/school bugs ourselves, and fire fighting to keep up with my day-job and making sure the Cognitive Neuroscience and Psychology programme I was leading ran smoothly. This inevitably impacted the fellowship project and we were unable to run the focus groups at the start of the project as planned.

But we pivoted! Instead we got the controlled experimental arm of the project through ethics procedures and approved by the end of January, and commenced data-collection in March. We collected data from over 120 participants across five controlled learning environments – which was brilliant! Then we used those data to inform the questions and topics for the focus groups, rather than the other way round. It wasn't the way we had planned – but it actually worked really effectively and allowed us to dig deeper into the causes for the results in the controlled experiment. So every cloud...!

Student partnership

My student partner – Laura-Raluca Pasca - was absolutely essential to the project. From the start, Laura participated in drafting research questions, designing surveys and focus group schedules, and analysing quantitative and qualitative data from the controlled experiment arm of the project. Laura's insights as a current student who had hands-on experience of both in-person and virtual learning were invaluable, and she had a good eye for asking questions in an accessible way. As Laura was based in a different faculty to me, she brought a really good insight into how things were being done in

Student partnership (cont.)

subject areas that were different from my own. Her connections across the student body via the Students' Union meant that we were able to recruit a more diverse cohort for our focus groups than I would have managed alone.

Collaborative work

We collaborated with our contacts in the Institute of Teaching and Learning and the Student Success and Development Team – Chloe Salins in particular – who used her networks to promote the project and focus groups and encourage involvement from a larger range of participants than we would have managed on our own, which was terrific!

Dr Paul Shore (Associate Dean for Flexible and Digital learning, FBMH), was an extremely helpful critical friend for the project, and always seemed to know what question to ask to make me think!

The project also benefitted from discussions with Dr Felix Kwihangana and Dr Taslima Ivy from the Manchester Institute for Education (MIE) in the Faculty of Humanities who have a particular interest in blended learning in a digital landscape and was great for bouncing ideas around and sharing what we're each up to!

Outputs

- Contribution to the [FBMH New Academics Programme](): I co-deliver [IT7: Teaching Methodologies - How to Engage Students]() which introduces the Watch party approach to new teaching staff, and discusses the evidence around the importance of engaging learners in an increasingly digital environment

- Presentation at the FBMH summer 2021 training programme, and video presentation for the School of Health Sciences [Teaching Showcase]() which resulted in colleagues leading units in the School of Health Sciences and the School of Biological Sciences adopting the approach

- Working with colleagues in the Manchester Institute of Education (MIE) to convert the learning from this project into a "case-study" for Education students in [EDUC70032 "Blended Learning for a Digital Age"](), thereby teaching this approach and its advantages to the next generation of teachers

- Delivered conference presentations on the approach and its advantages - including the results of the controlled experiments - for example:
    - The Geographies of Blended Learning conference
    - [CogSciSci conference]()
    - [University of Manchester Teaching and Learning conference]() (see Paper presentations: Sustainable change)
    - the [APA Annual Conference on Teaching]() (upcoming; talk accepted)

- Talk and training provided for [TeachFirst]() who are piloting the approach for use in some of their blended teacher training in 2023

- The results of my controlled experiments are being prepared for submission to the Journal Teaching in Higher Education.

Impact

The controlled experiment arm of this project shows that students' perceptions are that the in-person learning condition was better for their learning, but the objective data on test performance showed that this was not the case - there was no reliable difference in test performance according to whether or not the learning session was in-person or online. However, there was a significant advantage in performance produced by the addition of a chat box into the learning session - regardless of whether that session was online or in-person.

Follow-up surveys with these students who'd taken part, and the focus groups with students from across the University, both converged on the same explanation for why the watch-parties were popular with learners. I had hypothesised that it was the sense of shared experience and social group that would matter – but actually it seemed to be less about learners feeling a sense of community with one another (though that was part of it) and in addition it was that students need to feel connected to the member of staff to perceive the benefit. According to the follow-up surveys and focus groups, this was why my students enjoyed in-person lectures and felt they suited them (though the watch-parties with a chat box replicated this experience really well). It wasn't the social shared experience of being with other students that meant the watch-parties were popular – which is what I had predicted when the project began - it was that students could interact with the lecturer, and the lecturer valued their input, that seems to have been the magic ingredient.

I am continuing the work in this space with some follow-up experiments co-created with final year Psychology project students, but in the meantime, the watch party approach continues to be used in teaching successfully. Following the data analysis of the experimental arm of the project and focus groups, I delivered a five-week-block of in-person watch party practicals to ~400 Level 5 students with really excellent student feedback and

Impact (cont.)

engagement. Colleagues are picking up the watch party approach as an additional tool that can be used to enhance community (and effectiveness of teaching). Now that campus has largely opened back up and there is more in-person teaching going on, myself and some colleagues are still using simultaneous chat functions in our live lectures to allow students a forum to discuss issues and ask questions (staff can respond during scheduled breaks or activities).

For me, personally, the Fellowship has had an enormous impact and I'd encourage everyone with an idea to apply! It helped me carve out some time to work on this project that I hadn't had the opportunity to before. I've had such interesting conversations with people I wouldn't have otherwise met, I've learned a lot, built networks across the University and beyond, and it's started conversations about student belonging and voice in my Programmes, School and Faculty - something I'm very excited to be part of.

Reflection

It's fair to say that the project's direction changed from the originally intended outcomes; as is often the case with real research, it ended up being messier than expected and told a different story to the one I had foreseen! But I would say the project was successful – we have identified some of the causal ingredients in the success of the watch party approach, so now we can look to embed those in our teaching and student experience more broadly. We need to find ways to implement that in different physical and virtual environments. There is more work going on in this area to ascertain how this might vary for students with different characteristics, and in the meantime, I'm presenting these findings at conferences and am drafting them for a journal publication. I will scope out other ways of disseminating these findings (internally and externally), for instance through blog posts and workshops.

Next steps

Having pinned down some important factors contributing to student engagement and sense of belonging, now we need to share this information and develop ways to include this in what we do both inside and outside the classroom.

The project findings raise further pedagogical questions, which my final year project students this year were interested in investigating – so the work continues! For example, several participants/learners suggested that particular learning formats might suit them as an individual, and that individual differences might play a crucial modulatory role in these effects (e.g. neurodiversity, personality, ethnicity) – so we're repeating and extending the work with additional measures to investigate any such modulatory effects to see whether we can personalise this for particular students.

Jen McBride
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