

# Student engagement in blended and connected learning and teaching: a view from students

Alejandro (Ale) Armellini, University of Portsmouth, [Ale.Armellini@port.ac.uk](mailto:Ale.Armellini@port.ac.uk).

Dr Harriet Dunbar-Morris, University of Portsmouth, [harriet.dunbar-morris@port.ac.uk](mailto:harriet.dunbar-morris@port.ac.uk)

Amy Barlow, University of Portsmouth, [amy.barlow@port.ac.uk](mailto:amy.barlow@port.ac.uk)

Dylan Powell, University of Portsmouth, [Dylan.powell1@btinternet.com](mailto:Dylan.powell1@btinternet.com)

## Abstract

This article addresses two key issues in the context of the student experience at the University of Portsmouth in relation to Covid-19: lessons learned in the area of Blended and Connected (B&C) learning and teaching, and potential features of the post-Covid student experience.

Through the eyes of students, we explore significant questions, such as: Is the institutional vision for 'blended and connected' learning fit for a future of lower physical proximity and lower synchronicity? Can digital tools play a different role in promoting active learning within a student-centred pedagogic mix? How will universities explain and engage students in a student-centred pedagogic approach when students demand a return to face-to-face teaching?

A qualitative method was adopted, covering analysis of free-text comments provided by students in internal module evaluations. This supported a better understanding of the impact of the pandemic on student perceptions and experiences of their studies.

Four key themes will be presented relating to learning materials, synchronous (real-time) activities, asynchronous activities, and organisational and timetabling aspects.

Based on these findings, the article concludes by putting forward a post-Covid scenario for learning and teaching, which may interest institutions in the wider HE sector. It covers key features of student expectations around robust course design, and inclusive, complementary and mutually reinforcing modes of teaching.

## Introduction

The article aims to identify lessons learned as the University implemented a Blended and Connected (B&C) approach to learning and teaching across all its provision, and the implications of this shift for the post-pandemic learning experience. It explores the pre-Covid period by considering the pedagogic change journey that the University embarked upon in 2019, known as the institutional shift to B&C learning (Dunbar-Morris, 2020). It considers the principles and expected outcomes of this approach at Portsmouth, and how it was received

by students. It reviews feedback from students who experienced modules that had been redesigned for B&C learning, and the role played by academic staff in the roll-out of the approach. The analysis of student data provides insights into the extent to which the additional constraints associated with Covid-19 affected the student experience, as well as how students envisage their future post-Covid learning experiences. The findings section reflects on the effect of the B&C agenda on the University's response to the pandemic as all courses moved online in March 2020. It focuses on four major themes that emerged from the analysis and their impact on the learning experience: learning materials, synchronous (real-time) and asynchronous activities, and organisational and timetabling issues. These findings are presented in the form of "stop, start, continue" recommendations for higher education institutions.

## Context

The National Union of Students (NUS) defines partnerships as '*...investing students with the power to co-create, not just knowledge or learning, but the higher education institution itself*' ("A manifesto for partnership", 2012, p.8). What we do at Portsmouth is go beyond merely listening and responding to the student voice, we actively champion the role of students as 'active collaborators' (Dunne & Zandstra, 2011, p.4). Indeed, we recently revised our Student Voice Policy – Valuing Students' Views and Opinions to better encapsulate this partnership approach which is embodied in our co-created Student Charter. We purposefully encourage students to play an active role as a partner in their HE experience (see for example Bovill & Felten, 2016; Healey et al., 2014) and to work with us on the continual enhancement of the student experience. Our students are called upon to be active partners in our quality assurance and curriculum design processes.

One such initiative has been the revision and implementation of Portsmouth's Curriculum Framework. The development of the new Curriculum Framework Specification and its annexes (University of Portsmouth, 2018), known as Curriculum 2019, was achieved by implementing a model of co-creation for curriculum development in partnership with students (Dunbar-Morris et al., 2019). The framework and its annexes were designed to provide flexibility to course teams to develop an agile curriculum and courses that support the development of the knowledge, skills and attributes for success defined in the university's Hallmarks (a set of graduate attributes). As this course leader describes, Curriculum 2019 enabled innovative course design in partnership with students:

*'As a product of the University Strategy 2015-20, Curriculum 2019 promotes innovation in course delivery and assessment whilst ensuring students have the opportunity to become partners in the design of their own learning.'* Course Leader

We pride ourselves on continuous enhancement with students based on their feedback, and this is recognised by them, for example this student commenting on the focus groups run in a project about the quality of learning during Covid (Dunbar-Morris et al., 2021):

*'Yes, this focus [group] is really a great [way] to hear students view/voice about the University and this has made me believe that the [Portsmouth] University [...] wants to receive feedback from its students of their thoughts of the teaching.'* (Differing Perceptions of Quality Learning project website)

Having recently completed the curriculum-revision exercise, and having done so in partnership with our students, we were well-prepared to partner with our students on what is now known as the institutional shift to Blended and Connected (B&C) learning, i.e. the development of our B&C approach to learning and teaching for the 2020/21 academic year in light of the Covid-19 pandemic (Dunbar-Morris, 2020).

Like many institutions, the University set up a set of Workstreams as part of its response. At Portsmouth the Learning and Teaching Workstream (LTW), an overarching Workstream, with sub workstrands, covered all the academic and course delivery issues and challenges of delivering an on campus, face-to-face experience. It had three guiding objectives:

- To review teaching, learning and assessment to ensure that there is the required flexibility in place to deliver a high-quality experience and support all students to achieve their learning outcomes while perceiving that they receive value for money.
- To consider student and staff health, safety and wellbeing in decisions relating to the easing of Covid-19 restrictions in the University, informed by the latest Government and sector guidance.
- To engage with students and staff wherever appropriate to ensure the transition from lockdown both protects the wellbeing of staff and students and enables the resumption of university activities as quickly and safely as possible.

As can be seen in the principles which underpin our B&C learning approach (Figure 1), staff-student co-creation was a central part of our approach. The Principles of B&C learning were the first output from the LTW, enabling us to drive the shift to B&C learning through principles and pedagogy.

# Principles of Blended Learning



## Pedagogy-Led, Flexible and Responsive

Delivery is focused around blended learning to require student engagement, collaboration and reciprocity. It is underpinned by coherent weekly patterns of activity that are based on practical and realistic expectations of engagement.



## Inclusive and Supportive

Learning and teaching delivery is inclusive and participatory. It reflects the diversity of student strengths and needs, and actively supports student mental health and wellbeing.



## Staff and Student Partnership-centred

Staff-student partnerships are central. Learning and teaching is negotiated, co-constructed, and supported by reciprocal dialogue between staff and students.



## Aspirational

Our world-leading education challenges and inspires all students to develop a passion for their discipline and future careers, along with the characteristics outlined in the Hallmarks of a Portsmouth Graduate. We value our staff and their skills to innovate and inspire students in a blended learning context.

Figure 1: Blended and Connected Principles (University of Portsmouth, n.d.)

In order to develop a principles-based, pedagogically-founded model for the shift to B&C learning (Figure 1), within the LTW, the workstrand leads (induction and transition, student experience, staff development, champions network) and the Students' Union (SU) worked in partnership to ensure consideration of and decisions based upon: different elements of the student experience; all types of student (considering background or mode of delivery for example); university and sector good practice; and feedback from the academic community and the SU.

A key driver that accompanied the principle base was the pedagogic model of Flipped Learning (see, for example, Padilla Rodriguez & Armellini, 2021), which we then embedded into a new

virtual learning environment (VLE) template. With the academic community we drove this pedagogy-first approach, with technology placed in a supporting role, to ensure students benefited from a consistent experience across all their modules (Dunbar-Morris, 2020). For example, we purchased Panopto (July 2020) for Content Capture, to align with our new Content Capture Policy developed with students, and following student calls for lecture capture but designed to capture all core taught content not just lectures. We provided staff with early access to the software (normally 6-12 months implementation would have been required for such a project), a supporting website and training, including via our Blended Learning Festival. Staff have created 79,180 videos (35,125 hours), generating 2,210,698 views and downloads (August 2021).

Ensuring students feel a sense of belonging and connection is key to students' experience of higher education (Tinto, 2012). The rapid pivot to online risked students feeling isolated with their studies, but we addressed this by purposefully putting the phrase 'connected' in both the name and the focus of our approach. We wished our students to feel connected to each other, to staff and to the university wherever they were located and this was at the forefront of our minds in developing B&C learning. For example, in our VLE template we created opportunities for connection and interaction.

The VLE underpinned the transformation project as it enabled colleagues with mixed levels of digital literacy to follow a template of blended activities, including synchronous and asynchronous ones. This ensured that each module underwent a process of transformation under the new approach. All 450 courses adopted our B&C principles, pedagogic model and underpinning VLE template, which compelled student interaction. At a minimum all courses used the new template which brought in a range of activities and learning materials, and taught in a flipped approach using both online and face-to-face modes when government guidelines allowed.

Across the sector it was challenging to move at pace while making changes. Buy-in for the shift to B&C was achieved by using a Champions Network, which brought together staff across the university to consult on key changes and disseminate this information to the wider university community. Members were selected to represent each Faculty and a variety of subject areas and for their experience in pedagogy, scholarship of learning and teaching, or technology-enhanced learning. Two Principal Fellows (PFHEAs) were asked to lead workstrands in line with their expertise. This ensured embedded 'go-to' members of staff around the university. Strategic oversight was maintained by the LTW, which oversaw the launch of the Principles of Blended and Connected Learning, set the priorities and provided the overarching leadership.

## **Methodology**

As set out in "Engaging the student voice in our 'new normal'" (2020), obtaining early feedback from students on their experience of B&C learning by obtaining and analysing their module

feedback was key to ensuring the student voice fed into our continuous enhancement approach. This is in line with our Student Voice Policy - Valuing Students' Views and Opinions (University of Portsmouth, 2019) and the expectation that students will provide feedback to enhance learning and teaching. In addition, the data collection and analysis complied with the university's consent and ethical approval processes.

To gain such feedback, a qualitative method was adopted, which enabled the research team to benefit from the rich, free-text comments provided by students in our internal taught module evaluation surveys.

At the close of each module, all undergraduate students are invited to complete a standard, digital, module evaluation questionnaire. This questionnaire aims to capture and gain an insight into student perceptions of various aspects of the module they have completed. From the student viewpoint, it is the main source of feedback they can provide to detail their experience of a particular module, with the view to this being acted upon by module leaders, course leaders and departments in line with our Student Voice Policy. In the Module Survey, students are asked to indicate the extent to which they agree or disagree with set statements using a five-point Likert scale (Strong Disagree - Strongly Agree). The items in the scale cover teaching quality, the provision of resources, the assessment and feedback experience and student voice. At the end of this set of questions, students are asked the following open-ended questions:

- 1. *What should we continue doing, and why?***
- 2. *What should we stop doing, and why?***
- 3. *What should we start doing, and why?***

By focusing on responses to these three questions, the data analysis can ascertain what was successful, what was an improvement that students would like replicated when they return to campus, and crucially, what was missing and why it is important to students.

The qualitative data from these three open-ended questions are the focus of the analysis rather than the quantitative ratings in the module survey. This puts the student voice at the heart of the findings and enables a deeper understanding of how B&C learning was experienced.

We examined the shift to B&C learning during the Covid period and the role that academic staff played. Perceptions of self-directed learning, student autonomy and contact time sit at the core of the analysis. As the research focus is on the use of student voice data to explore their experience of the B&C approach, the areas targeted relate to the taught experience, student satisfaction and lessons learned. The analysis enabled us to collate a set of considerations to take forward with future cohorts.

Key themes were identified aligned with the research focus, from this point provisional categorization was completed and the themes were refined and then later tested against the wider data set. The researchers used a sample of student comments containing 4001 entries

across levels 4 to 6 (i.e., years 1 to 3 of undergraduate programmes) in the 2020-21 academic year. These entries were considered representative of the wider undergraduate student population across disciplines and years of study.

In line with the research focus, the data analysis did not control for student level, discipline or which stage of the year the module was completed (e.g., teaching block one or two). It also did not control for year of study and subsequently the length of the learning experience that the students had with the new pedagogical model, which differed across the sample, ranging from six to eighteen months in duration. This was a deliberate exclusion in the data analysis process as the project did not set out to examine the impact of time or length of study on student satisfaction and the learning experience. Investigating the key themes against the sample met the research aims and provided valuable information for staff as they consider the design of future courses.

## **Analysis**

A manual coding exercise was conducted on a sample of 450 free text comments from the module survey with an equal balance of negative and positive responses, reflecting the balance within the full dataset.

Firstly, an inductive approach was adopted. It consisted of finding plausible relationships between key messages and concepts that emerged from these 450 free text comments. Researchers identified key themes across the student voice data which were broadly separated in terms of positive and negative feedback on the B&C approach. Categorical Content Analysis was conducted to reinforce evidence for the key themes which framed the findings (Ritchie & Spencer, 1994). This also facilitated a process of data triangulation and resulted in four prominent themes, which shaped the key findings of the study. In line with the inductive approach, the process that followed was not linear, but involved cyclical checking and alignment of the broader data set, as well as constant comparison and refinement. Once this was completed, overarching findings were identified as belonging to four key areas, discussed in the following section.

## **Findings**

Centred on illustrative examples of student feedback from the analysis, this section is structured around four key themes emerging from students' experiences of B&C learning and teaching at the University of Portsmouth between October and May 2021:

- learning materials
- synchronous (real-time) activities
- asynchronous work (including tutor-facilitated activities, independent learning and learning in groups)
- organisational and timetabling aspects.

## *Learning materials*

The impact of the quality of learning materials on student motivation and engagement with learning in a B&C environment was high. The technical and visual quality of materials was a dominant feature in the data. When the technology (e.g. audio or video quality) or structure of the materials were poor, students disengaged by choosing not to attend live sessions or watch any further pre-recorded lectures. Instead, they chose alternative resources to complete their studies independently, or decided not to continue at all. Where quality was high, and lecturers were confident and committed, students felt at ease and were more likely to engage in independent and collaborative work. Uniformity across modules and the VLE layout aided learning and provided students with a sense of calm and confidence.

*I stopped attending sessions after the first couple of weeks because the audio was poor. [...] I taught myself with the slides provided on Moodle and reading the textbook.*

*Continue to use Padlet in seminars - I felt more comfortable to contribute and I could think more clearly about what we were discussing.*

*Online pre recorded lectures are incredibly beneficial to me. I love being about to pause and reward [rewind] and rewatch sections. [...] [When I] need a mental health break I can return to the module when I am in a better state. This has been a massive help for me.*

Learning materials and resources did compel student interaction. In some cases, early problems with the study material affected student engagement for the rest of the course. Some students who did not engage face to face found it easier to do so in the online environment. Students engaged with a variety of learning materials provided via the VLE (e.g. powerpoint slides, videos, documents, etc.) and were positive about how the availability of these aided their learning.

## *Synchronous activities*

As in the traditional classroom, the data points to good and bad teaching experiences by students during the synchronous online sessions. In some instances, student dissatisfaction appeared to be due to poor understanding and implementation of B&C learning by tutors in such environments, as seen elsewhere in the dataset. However, some students expected a traditional approach to learning and teaching and did not engage with models that supported independent learning through sense-making activities before and after synchronous sessions. The need to better explain the meaning and implications of B&C as a pedagogical approach to students and staff was evident.

Real-time drop-in sessions, whether face to face or online depending on the government guidance in place at the time, provided extra motivation to students, especially if they were held regularly and consistently. Students were clear about their preference for shorter, bitesize, live webinars and workshops timetabled at regular intervals, rather than longer online



sessions. This approach was seen as engaging and beneficial to students' wellbeing, while helping them with sense-making of critical content. Long online synchronous tutorials were not popular. Flexibility in the timetabling of activities was particularly well-received.

*I don't think the tutorials should be two hours long.*

*I really enjoyed attending the online workshops - I feel that it helped me review the content learned in lectures and put my knowledge into practice [...].*

*Lots of different seminars available so if you missed one you could go to others.*

Students appreciated regular and consistent communication with tutors and peers. However, some students expressed a desire to “be taught”. They had an expectation that the tutor would “go through” every aspect of the module, which is not what the B&C approach encourages. This misunderstanding about the need to engage with the content and activities before and after attending live sessions resulted in unsatisfactory learning experiences and dissatisfied students.

*Please stop assuming that we've already done the prerecorded stuff before the live lecture, it's really worrying when you say 'this week you should've covered this' early in the week because some people just haven't got here yet. Which isn't a great feeling.*

Students' experiences with synchronous work were therefore mixed, often as a result of inconsistencies between their expectations and the principles of B&C as a pedagogical approach, or how it was implemented by particular tutors.

### *Asynchronous work*

Fostering a sense of belonging emerged as a major topic, particularly in relation to asynchronous moderation and appropriate tutor interventions. Students pointed to meaningful interactions in asynchronous environments as critical. Such interactions with peers, tutors and content, if adequately moderated, constituted a major enabler for engagement and progression. Social, teaching and cognitive presence (Armellini & De Stefani, 2015) appeared to play a key role in students' motivation and belonging.

In line with other sections of the analysis, it was unclear to some students what B&C learning and teaching was, which elements made it up, and what the role of asynchronous and synchronous activities were within it. For example, students expected a higher level of support for peer-facilitated online group work. This formed the backbone of many of the asynchronous activities. The data showed that good group work dynamics online were hard to achieve. This finding was also replicated in a wider study of the quality of learning during Covid (Dunbar-Morris et al., 2021). The reported absence of strong social foundations and group cohesion meant that some students felt isolated and disengaged extremely early on in some modules.

*The group project, especially in the pandemic, made trying to work with a partner I have never met before a very hard and stressful experience.*

Students reported enjoying in-person teaching and being able to connect with other students. They felt that no asynchronous approach could replace face-to-face teaching, even if they experienced some effective asynchronous activities coupled with effective teaching practices and tutor commitment.

References to the duration and quality of pre-recorded content were common in the dataset. Unsurprisingly, long, unengaging videos were not popular with students. Short asynchronous pre-recorded lectures, on the other hand, allowed students to decide how and when they could fit their learning around timetabled sessions. Students reported that their study patterns changed during the pandemic: they valued pre-recorded content and follow-up activities to be structured in manageable, flexible chunks.

Students' limited understanding of what the tutors expected them to do with the pre-recorded material was again highlighted in the comments. This apparent dissatisfaction may be due to a number of factors, such as the lack of an appropriate scaffold within the learning design, in the form of sense-making tasks for meaningful engagement with the content, or explicit links between the videos and the synchronous sessions in which the material would be further discussed and analysed. The many and diverse ways in which an effective pedagogic blend can incorporate synchronous and asynchronous components for maximum student benefit were probably unclear to staff as well.

*Making the online lectures more interactive and interesting for students because as it is now, especially the longer lectures just feel like you are watching a tv show that you do not like early in the morning*

*The pre recorded lectures were not up to standard, not engaging enough [...] they expect us to learn the rest of the content on our own rather [than] them go through it!*

On the other hand, there were examples of excellent uses of the VLE for asynchronous work. Such examples encompassed the design and structure of the module pages as well as the practices (both synchronous and asynchronous ones) that made this design student-focused and effective. Tutorials and step-by-step guides were regarded as very useful for self-study, for example. Committed and engaged tutors appeared to result in committed and engaged students who had highly enjoyable and productive learning experiences.

*The level of detail and support through both lectures and seminars has been really helpful, given the fact that we have had minimal face to face teaching sessions. It's hard to come up with any criticisms of the module delivery.*

*Recording of the sessions is really helpful. Workshop tasks are really well prepared and interesting. Moodle pages and resources are so well organised and structure[d]. The way this module is run feels genuinely flawless.*

Students were clear about the advantages of multi-channel tutor and peer support for asynchronous work. Some of those mechanisms were planned in advance and mediated by tutors, while others seemed to be generated spontaneously by students. Students used a range of technologies to create this supportive environment.

Asynchronous work was, as expected, a major component of students' experiences during this period. Key topics associated with asynchronicity included: students' sense of belonging, their understanding of B&C, quality of and engagement with pre-recorded material, tutor and peer support mechanisms for group work and independent study, as well as encouraging examples of excellent design and online teaching practices.

### *Organisation and timetabling*

As also noted under the learning materials section, student feedback highlighted how important good module organisation and a structure on the VLE are for student learning. Students compared their experiences to what they had seen before Covid and expressed dissatisfaction with what they perceived as poor organisation, or structures that made their studies harder. While they highlighted elements of the blend that were conducive to effective learning, they were unhappy about online-only learning when government restrictions prevented the implementation of the face-to-face components of the blend. Students' expectations of a return to in-person teaching were evident in the data.

*This module in terms of structure has been by far the most disorganised. There doesn't seem to have been any real clear plan.*

*As soon as it's Covid safe the sessions need to go back in person! While the Zoom sessions are surprisingly pretty good, in person teaching was much easier to follow*

Part of the dissatisfaction relates to the "blended nature" of the timetable and the expectations of staff in relation to students' ability to manage that timetable. The mix of synchronous and asynchronous activities, often poorly coordinated, generated bottlenecks and clashes, which resulted in stress for some students. For example, there was increased pressure to complete a week's pre-recorded lecture and associated tasks before the Monday seminar. This led to students not being able to get the full benefit from the timetabled session as they had often not completed the pre-seminar work.

*We need a more organised timetable, for example at the same time everyday (..) when you're at home, a routine helps to keep me motivated but if the time table is scattered I feel uncomfortable.*

The structure and distribution of workload across the week were key to students' satisfaction and wellbeing. The pandemic imposed restrictions on physical proximity and therefore on the flexibility of the "blended timetable" that the university intended to offer within its B&C approach. However, students found benefits in the balance of synchronous and asynchronous activity, some of which are likely to continue to be implemented after the pandemic.

## **Conclusion and students' post-Covid expectations**

This section reviews the above findings and considers a number of features of potential post-Covid student learning experiences and students' expectations within that future. It also provides recommendations for institutions that wish to continue with blended learning post-Covid based on the students' "stop, start, continue" feedback.

The analysis showed excellent learning experiences alongside poor ones, which indicates an inconsistent picture across the university and points to variable pedagogic practices by academic staff. The themes identified in the analysis (learning materials, synchronous and asynchronous practices, and organisational aspects) highlight strengths as well as areas of concern that the institution and the sector should address.

Students were complimentary about the elements where as an institution we had planned for and brought in consistency through the use of the VLE template and the implementation of the Content Capture Policy and Panopto software. Both of these had been designed to compel student interaction in B&C learning by scaffolding them through the flipped approach to learning that we had implemented. In addition, the deployment of these tools supports independent and self-directed learning, as part of the university's ecosystem of digital technologies.

Students were not shy in expressing their views about teacher-centred content delivery practices to which they were subjected.

*I just looked up teaching methods and read that a teacher-centred method treats students as 'empty-vessels' who passively receive knowledge from their teachers through lectures and direct instruction, with an end goal of positive results from testing and assessment. And that just about sums it up for this course really.*

The limited and patchy availability of teacher training for higher education practitioners is well documented in the literature. Many learn about teaching as they teach (Armellini & Padilla Rodriguez, in press). The pandemic emphasised this gap in HE practitioners' understanding of learning and teaching but, on the other hand, foregrounded the outstanding practices of many others, whose dedication, commitment and ongoing engagement generated those very attributes and behaviours in their students.

Many students have not fully understood the pedagogical reasoning for the use of pre-recorded lectures in context and the flipped approach to learning within a B&C approach. These concepts and their rationale need to be better explained to students and arguably to staff, as Dunbar-Morris et al. (2021) found in a project which looked at the perceptions and experience of students across four different institutions and a range of subject areas during the pandemic. The mixed feedback on teaching quality we report here suggests that students valued online and face-to-face real-time as well as asynchronous activities for different reasons. While the data suggests they found regular, interactive, online or in-person sessions best for learning, they also perceived pre-recorded lectures as critical to their success and particularly useful for revision.

While many students insisted on a rapid “return to normal” (i.e., face-to-face teaching), it is clear from the data that most appreciate the benefits of different forms and implementations of B&C learning. Not in the traditional, limited view of blended learning (“face-to-face plus online”) but in a wider, holistic sense, including appropriate and context-sensitive blends of synchronous and asynchronous practices, tools, pace and space (Armellini & Padilla Rodriguez, 2021). Face-to-face teaching will certainly be prominent in those post-pandemic blends.

Our student author reports that in the new academic year the continued use of pre-recorded lectures has been incredibly useful. However, the slippage we were concerned about in terms of a focus on a “return to normal”, resulting in less focus on the provision of the materials that students valued during the pandemic, is already appearing. This manifests as fewer pre-recorded lectures and high-quality learning materials provided on the VLE. There is work for us to do to continue to provide B&C learning in the post-pandemic learning and teaching environment which addresses students’ feedback and articulates the pedagogic reasoning behind our approaches to teaching and learning.

It is therefore an appropriate point to summarise what the students experienced as helpful and less helpful in our B&C approach.

*Summary of findings and resultant recommendations*

Table 1 provides a summary of the key findings as they relate to the “stop, start, continue” questions above. This summary also acts as a set of recommendations for institutions that wish to implement or continue with approaches that align with blended and connected learning post-Covid.

| ↓ Themes | Stop                   | Start                        | Continue                     |
|----------|------------------------|------------------------------|------------------------------|
| Learning | Uploading poor quality | Identifying patterns of good | Using activities and content |

|                                    |   |  |  |
|------------------------------------|---|--|--|
| materials                          | materials to the VLE (pedagogically or technically).  | practice that can be emulated to improve consistency and student engagement.   | that encourage interaction (student-student, student-tutor and student-content).   |
| Synchronous (real-time) activities | Running long online sessions.   | Being explicit about B&C and its implications in practice.<br><br>Managing student expectations about learning and teaching in a B&C environment.  | Offering regular, short, interactive drop-in sessions.<br><br>Timetabling real-time sessions flexibly.<br><br>Providing a rationale for the extent to which content should be covered in sessions, versus the expectation that students should cover that material before or after sessions, and adjusting practice accordingly.   |
| Asynchronous work                  | Leaving forums and other asynchronous environments to fully self-moderate.<br><br>Assuming that all asynchronous work is "independent study".<br><br>Uploading excessively long (and often tedious) pre-recorded content. | Reviewing techniques for asynchronous moderation that boost participation and engagement.<br><br>Supporting group work effectively, including addressing group cohesion issues.<br><br>Regularly reviewing the learning design of modules and courses for B&C. | Creating blended environments that foster a sense of belonging.<br><br>Ensuring regular tutor visibility, engagement and commitment.<br><br>Evaluating appropriate blends, where synchronous and asynchronous work interact.<br><br>Using content effectively to support the achievement of learner-centred activities.<br><br>Showing explicit commitment in all asynchronous environments.<br><br>Providing support through a variety of channels. |
| Organisation and timetabling       | Releasing inconsistent or chaotic 'blended timetables'.   | Prioritising face-to-face teaching whenever possible and appropriate, and timetable accordingly.<br><br>Organising synchronous and asynchronous work in a logical manner.  | Searching for optimal blends and balances of in-person and online work.  |

Table 1: Summary of findings and recommendations

Students expect programme and module design to benefit from pedagogically sound, inclusive and mutually reinforcing modes of teaching, in addition to the default in-person approach. Such student-focused modes of teaching should be flexible enough for students to maximise value and benefit from their learning journeys. A wide range of tools, spaces and digital technologies will play a major part in those new and evolving blends, informed by the experience and evidence gathered during Covid. Post-pandemic higher education learning and teaching is likely to require creative synchronous and asynchronous practices that accommodate students' expectations in a learning environment characterised by lower physical proximity and lower synchronicity. This landscape will shape and provide a springboard for further pedagogic innovations in higher education.

## References

Armellini, C. A., & De Stefani, M. (2015). Social presence in the 21st Century: An adjustment to the Community of Inquiry framework. *British Journal of Educational Technology* 47(6), 1202-1216. <https://doi.org/10.1111/bjet.12302>

Armellini, A., & Padilla Rodriguez, B. C. (in press). Emergency professional development in higher education: Lessons from the COVID-19 pandemic. In R. Sharpe, S. Bennett and T. Varga-Atkins (Eds) *Handbook for Digital Higher Education*. Edward Elgar Publishing. <https://www.e-elgar.com/shop/gbp/handbook-of-digital-higher-education-9781800888487.html>

Bovill, C., & Felten, P. (2016). Cultivating student–staff partnerships through research and practice. *International Journal for Academic Development*, 21(1), 1–3. <https://doi.org/10.1080/1360144X.2016.1124965>

Dunbar-Morris, H. (2020). Developing a Blended and Connected Learning Experience – Rising to the Challenges. *Education 4.0: Our Next Phase to Curriculum and Assessment Design International Virtual Series*. [www.cetl.hku.hk/edu4](http://www.cetl.hku.hk/edu4)

Dunbar-Morris, H., Ali, M., Brindley, N., Farrell-Savage, K., Sharp, L., Sidiropoulou, M.P., Heard-Laureote, K., Lymath, D., Nawaz, R., Nerantzi, C., Prathap, V., Reeves, A., Speight, S., & Tomas, C. (2021). *Analysis of 2021 Differing Perceptions of Quality of Learning* (final condensed report). University of Portsmouth. <https://doi.org/10.6084/m9.figshare.16892560.v1>

Dunbar-Morris, H., Barlow, A., & Layer, A. (2019). A co-constructed curriculum: A model for implementing total institutional change in partnership with students. *Journal of Educational Innovation Partnership and Change*, 5(1). <https://doi.org/10.21100/jeipc.v5i1.926>

Dunne, E., & Zandstra, R. (2011). Students as change agents – new ways of engaging with learning and teaching in higher education [Internet]. Bristol: A joint University of Exeter/ESCalate/Higher Education Academy Publication. <http://escalate.ac.uk/downloads/8244.pdf>

Explorance. (ed) (2020). *Engaging the student voice in our ‘new normal’. How are universities planning to capture, and act upon, feedback from students in 2020-21?* <https://explorance.com/publication/engaging-the-student-voice-in-our-new-normal>

Healey, M., Flint, A., & Harrington, K. (2014). Engagement through partnership: Students as partners in learning and teaching in higher education. *The Higher Education Academy*.



<https://www.advance-he.ac.uk/knowledge-hub/engagement-through-partnership-students-partners-learning-and-teaching-higher>

NUS (2012) A manifesto for partnership. *National Union of Students*.

[www.nusconnect.org.uk/resources/a-manifesto-for-partnership](http://www.nusconnect.org.uk/resources/a-manifesto-for-partnership)

Padilla Rodriguez, B. C., & Armellini, C. A. (2021). *Cases on Active Blended Learning in Higher Education*. IGI Publishing. <https://doi.org/10.4018/978-1-7998-7856-8>

QAA Enhancement Project. (n.d.). Differing Perceptions of Quality Learning project.

<https://sites.google.com/port.ac.uk/qaa-bame-enhancementproject>

Ritchie, J., & Spencer, L. (1994). Qualitative data analysis for applied policy research. In A. Bryman, A. and R. Burgess (Eds.), *Analysing Qualitative Data*. Routledge.

Tinto, V. (2012). *Completing College: Rethinking Institutional Action*. University of Chicago Press.

University of Portsmouth. (n.d.). *Principles of blended learning*.

<https://sites.google.com/port.ac.uk/preparingforteachingonline/principles-of-blended-learning/principles-of-blended-learning?authuser=0>

University of Portsmouth. (2018). *Curriculum Framework Specification*.

<http://policies.docstore.port.ac.uk/policy-217.pdf>

University of Portsmouth. (2019). *Student Voice Policy*.

<https://policies.docstore.port.ac.uk/policy-069.pdf>