

# Exploring the four aspects of designing beyond blended learning



## Time, pace and timing

Learning may be synchronous (live, shared time) or asynchronous (independent, own time).

With synchronous learning high-quality, responsive interactions are afforded by bringing people together at the same time and place. In asynchronous learning individuals choose when to complete the task. The QAA in its course design, approval and management playbook (2022) includes as a condition of success that: “there is a strong pedagogic rationale for whether sessions will be synchronous or asynchronous, and how both forms of activity interact to enhance learning”.

Asynchronous learning is usually task-based, with learners choosing when to complete the task. In reality, independent study tasks have a time window or deadline to help students stay on track with the requirements of the course and with each other. Novice learners are often given some guidance and structure so they can manage independent time productively. Pedagogically, live sessions are more responsive, provide more social cues and interactive possibilities and are good for rapidly building ideas or solving problems together. Responsive teaching can be fast and rewarding in a live session. Asynchronous time is pedagogically valuable for planning, reflecting, reviewing, working on extended assignments and undertaking more extended collaborations. Responses to student work are likely to be more considered and to require more consideration, too.

In curriculum design, time is usually mapped out in sessions and timed tasks. The learning activities suitable for a particular session depend on its length, the number of students and teaching staff brought together and what spaces or platforms are available. Synchronous sessions can include open-ended and student-led activities, but are often teacher-led to ensure time is used well. Asynchronous learning will tend to be student-led. A general goal of higher education is that students should undertake progressively more self-directed learning and should have more agency over time and timing, order and pace.

Digital modes of participation can change learning time in a number of ways. For example, the option to record live sessions enables students to review them later at their own pace. Collaborative documents and design boards can be used live for rapid development of ideas, and in private study time to build on these shared outcomes. Even when a class is working together in a physical space such as a lecture theatre they can quickly move to shared or private digital spaces for reflection or consolidation activities.

Poor connections can create delays in live online sessions that participants and educators have to manage. This is a less welcome aspect of ‘time shifting’ that comes with digital participation.



## Space and place

Learning may take place online and/or in place (on site).

A wide variety of places exist on campus for synchronous, in-person classes including lecture theatres, seminar rooms, tutorial rooms, labs, studios, practice rooms and workshops. Some off-campus places may also be used for learning eg placements, site visits and field work. Spaces may be specialised to particular kinds of learning – such as labs and practice rooms – with relevant material resources and facilities available. The same is true of digital environments designed for learning.

Online environments for live learning include video-based platforms such as Zoom, Teams, Blackboard Collaborate, BigBlueButton and others. Groups of different sizes can be managed through the use of functions such as chat or Q&A, break-out rooms and permissions. Collaborative environments such as design boards and shared documents can be used live, and some have live chat or video. Similarly, simulations and games may be used by a number of students at once (synchronously) or for private practice. Platforms shape learning interactions through their navigational features, on-screen tools, forms of presence (eg video, audio, avatar, chat, screen sharing), input and output media, and the permissions available to different users. As discussed, all these may require planning and coordination if interactions are to happen smoothly.

Campuses seem designed for synchronous learning, but many spaces are used for independent learning too. These include library desks and computer labs, cafes, learning pods and practice spaces such as studios, workshops and labs. Since the pandemic and cost of living crisis, many HE providers are designating more spaces for students to book or drop into at times that suit them. Student services are often provided around drop-in areas for ready access.

For asynchronous learning online, platforms include the now familiar virtual learning environment (VLE) with the functionality of threaded discussions, wikis, online resources, quizzes and diagnostics, tests and online tutorials. Collaborative documents, design spaces, simulations and games, and virtual and augmented reality (VR and AR) spaces can also be used by learners in their own time, though these are all platforms that allow live and independent study to be integrated.

Platforms and places can be seen as interconnected. Contemporary learning space design pays particular attention to digital devices and connectivity with plug-and-play features, charging stations and flexibility to integrate new technologies over time. Equally, when students are participating online, consideration must be given to what they need ‘in place’, whether that is simply a networked computer or elaborate augmented reality devices and virtual labs. With headsets, students can even participate from public places such as buses and trains. What is happening in their physical environment may affect their online engagement, such as their concentration or willingness to use their camera and mic.

A final consideration is whether places and platforms are owned by the education provider and provided universally to students, or accessed by students independently. These differences are particularly significant when it comes to issues of equity, diversity and inclusion. The provider’s estates should be accessible and free to students and should provide all the functions and resources they need for learning. Third-party platforms may not have the same accessibility and security standards. Their use by some students has equity implications, and makes it harder for students to integrate their learning or get feedback on their work. Nevertheless, there are many reasons why they may use third-party platforms and why educators may recommend them. Aesthetics, familiarity, usability, specific functionality and marketing all play a role.





## Learning materials: print, digital and other media

In relation to learning content, materials were traditionally print-based (text or graphical). Both live classes and own-time study now involve the use of digital resources far more than print – e-books, e-journals, presentation slides, videos, digital maps and timelines, digital notes and annotations. The prevalence of digital media for learning – especially time-based resources such as audio and video and interactive resources that structure pace and progress – has implications for how students use their independent study time. Curriculum teams will also need to be aware of the rising costs of e-books and subscriptions since lockdown, and the limitations set by publishers on the use of digital format texts.

In relation to learning of practices and processes, it is increasingly common for material resources – the environment itself as a learning resource, tools and instruments, materials for making and doing – to have digital counterparts. Developments in virtual and augmented reality, immersive environments and haptics as well as coding, making and 3D printing all mean that practical learning is undergoing the same shift towards digital media that the learning of concepts has already undergone. Digital practices themselves constitute a whole new curriculum, as different subjects demand the use of different software, devices and media, environments and methods.

As these examples show, digital media can blur the distinction between synchronous and asynchronous learning, real world and online space – or at least allow them to be blended in new ways. For instance, a collaborative space or virtual world might be used in a live class, while the same environment can be visited at a later time, solo or in self-organised groups. Digital recordings allow live sessions to be reviewed in students' own time and at their own pace, and the convenience of these recordings can undermine students' interest in attending sessions on campus. So digital media change the meaning and value of the live experience. Meanwhile, video-based and interactive media are time-based in a way that shapes the pace and order of learning, even if learners choose when to access them.



## Groups, roles and relationships: solo, one-to-one, one-to-many and group-based learning

Digital environments can change the meaning and the learning potential of interactions in many ways. There is no room here to explore the many kinds of learning, teaching and peer learning relationship that are valuable in higher education. Once again, though, the lack of social cues means interactions of all kinds may need to be more closely planned, with norms of behaviour and time/pacing made more explicit. While this can suit more reflective learners it may frustrate those who prefer a more responsive and dynamic classroom environment. Another important factor is that interactions leave more traces online. It can be helpful: learners can simply download recordings or the content of whiteboards and chat windows. But a generation of students with experience of social media may be wary of having their words or image captured while online. Even with strong rules in place about confidentiality, and even when a session is not being recorded, students can be unwilling to contribute on screen.

Collaboration and discussion are typically more responsive in a live session, and learners progress more when they are in a zone of proximal development (ZPD) with their peers. So group work is a good use of synchronous session time, especially for shared knowledge-building and problem-solving. In live online sessions, break-out rooms and collaborative environments allow a fine-grained control of group composition and help students track their contributions; both are features that can be more tricky to manage in a place-based class. Having every student occupy the same small rectangle of screen space also provides an equitable starting point for discussion. Online, however, it is not quite so easy to form and re-form groups on the fly.

Different ways of interacting naturally suit different learners and different activities. Online, students can contribute through live chat, poll responses, Q&A, on mic and on camera. Having their own camera and mic means students can often participate more equitably online than in a large teaching room, where the assumption that teaching will be from the front may be built in. There may be advantages to including some online activities (eg quizzes and polls) in large on-site lectures so that everyone has a chance to contribute. Online or in place, students who don't like to speak publicly can contribute to shared outputs such as notes and drawings, and may contribute more happily in small 'buzz groups' or paired tasks.

