

The changing role of technology in supporting learning and teaching practice in UK higher education following the COVID-19 pandemic

A HeLF survey report

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July 2021

About the Heads of eLearning Forum (HeLF)

HeLF was established in 2003 as a UK 'network of senior staff in institutions engaged in promoting, supporting and developing technology enhanced learning' (HeLF, 2018). Each UK Higher Education institution can nominate one representative to HeLF which now has over 140 institutional members.

HeLF arranges online and face-to-face meetings on topical eLearning themes. It also has an active mailing list, which is restricted to HeLF members in order to provide a closed forum for debate on current issues.

HeLF acts as 'an advisory body for national and governmental organisations on issues relating to eLearning institutional strategy and implementation'. It is 'proactive in soliciting responses from such bodies and promoting the views of its membership'.

Enabling collaboration on 'the strategic implications of developing and implementing eLearning', HeLF supports 'the processes by which eLearning strategy can be effectively created, and implemented, including advice, support and co-operation between members' (HeLF, 2018).

More information about HeLF and its activities is available at <http://www.helf.ac.uk/>



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Executive Summary

This report presents analysis of the Heads of eLearning Forum (HeLF) survey on institutions' plans for learning and teaching in academic year 2021-22 and beyond and the role that technology will play in that future.

The findings, from responses from 37 institutions, show that the changes to learning and teaching in HE caused by the COVID-19 pandemic will have a lasting effect on practice in the sector and that institutions are seeking to preserve some of the benefits of online learning while retaining the advantages of face-to-face provision.

The main findings are:

Learning and teaching

- Blended learning will be the predominant approach for 81% of institutions on 2021-22. It will remain the main approach for 73% of institutions beyond that period.
- While a continued response to the COVID-19 pandemic is the main driver for adopting this approach in the short term, in the longer term improvements to pedagogy and increasing flexibility were more prominent themes.
- 45% of institutions will deliver fewer lectures in 2021-22, with 32% planning for a reduction beyond that. 51% of institutions are undecided about whether they will reduce lecture numbers after 2022.

Learning Spaces

- Almost three quarters (73%) of institutions are making changes to their learning spaces in the next two years.
- These changes include the provision of audio-visual equipment to support hyflex teaching and the reconfiguration of spaces to support active learning.

Assessment

- 78% of institutions are making changes to their assessment practices in 2021-21 and beyond.
- The drivers behind these changes are a desire to diversify assessment, reduce the dependence on exams and introduce more 'authentic' assessment.
- Where exams persist there is a desire to move them online where possible.

Staff and student skills

- Respondents were largely satisfied with the pedagogic skills of staff (86%) and the study skills of students (86%) to support the changes they intend to make to learning and teaching practice.
- They were also happy with the digital skills of their staff (81%) and students (92%).
- Despite this confidence institutions will continue to support and expand staff and student development in these areas.

Introduction

The COVID-19 pandemic that began in the UK in early 2020 had an enormous impact on learning and teaching in UK higher education institutions (HEIs). The lockdown that began in March 2020 meant that institutions had, firstly, to move to an 'emergency' mode of online teaching and assessment to complete the academic year and, secondly, to quickly develop effective online teaching to support students through academic year 2020-21. Learning technology, and the teams that support it, took on a vital role in enabling and informing these moves online. This report provides an analysis of a survey completed by Heads of eLearning at UK HEIs in June 2021 on the short- and long-term effects on learning and teaching of the response to the pandemic.

At the time of writing, as the UK and devolved governments begin to ease restrictions, the survey presents a snapshot of how UK institutions intend to support students in academic year 2021-22 and beyond.

The following definitions were used in the survey to describe possible approaches to teaching:

Face to face	Blended	Hyflex	Online
All teaching activity takes place on campus. Supporting course material is available online.	Course material is available online. Asynchronous activity takes place online and remotely. Synchronous activity takes place face to face on campus and is focussed on participation and active learning.	Course material is available online and asynchronous activities take place online and remotely. Synchronous activity takes place simultaneously face-to-face in the classroom and online.	All course material is available online and synchronous and asynchronous activities take place online and remotely.

Methodology

This research is based upon a survey of HeLF members that was completed in June 2021. The questions were a mixture of closed multiple-choice/multiple-answer and multiple selection as well as open response type. The survey was completed online using the Jisc Online Surveys tool (onlinesurveys.ac.uk). All respondents were anonymous and the data was held securely. The results have been analysed using qualitative and quantitative methods.

There were 37 responses from separate institutions, resulting in a response rate of 26% of the total HeLF membership. The respondents to the survey were either 'greatly involved' (50%, n=18) or had 'some involvement' (50%, n = 18) in the discussions and decisions described in the study. The results for each question are given below.

Results

Planning for academic year 2021-22

Respondents were asked what was being planned as the predominant approach to teaching and learning at their institution in academic year 2021-22. A large majority of institutions (81% (n = 30)) were planning for blended learning, with 11% (n = 4) planning for hyflex, 5% (n = 2) for face-to face and 3% (n = 1) for online only (Figure 1).



Figure 1 - Which of the following best describes the predominant approach to teaching and learning being planned by your institution in academic year 2021-22?

The two main drivers for the choices presented in Figure 1 were a continued response to the uncertainties of the COVID19 pandemic (81% (n = 30)) and pedagogic considerations (60% (n = 22)). A third of respondents also cited student pressure as contributing to their planning response (32% (n = 12)), with smaller numbers reporting considerations around technology (16% (n = 6)), student recruitment (14% (n = 5)) and digital skills (5% (n = 2)) (Figure 2).

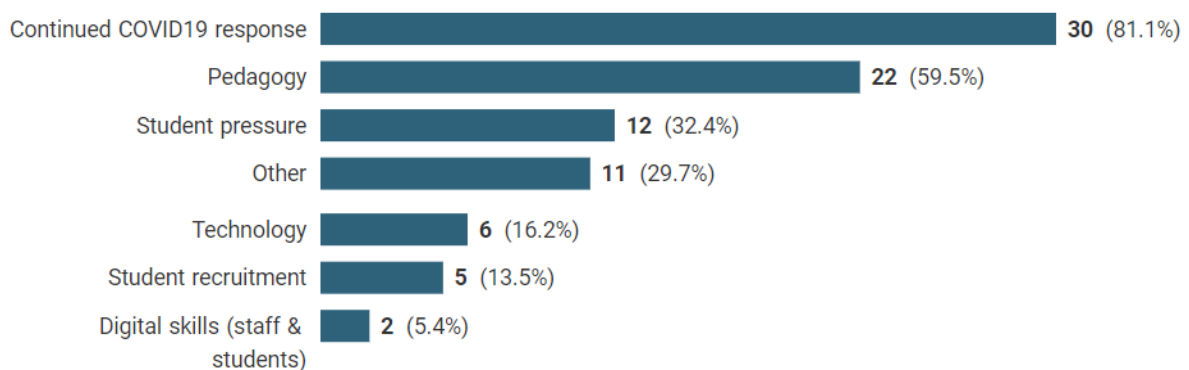


Figure 2 - What are the drivers for your institution adopting the approach selected in Question 1?

Where respondents selected 'Other' for the question shown in Figure 2, the main reason given for selecting an approach other than face to face was the expectation of some continuation of social distancing requirements limiting capacity on campus. Respondents also expressed a desire to be able to offer an on-campus experience to students, albeit with restrictions:

‘For on-campus programmes we will continue to offer an on-campus element where possible (based on social distancing restrictions). Our general approach is ‘hybrid’ - so there will be flexible ratios of on-campus and online engagement depending on restrictions. Larger lectures will likely be fully digital.’

‘Opportunity to get the best of both worlds.’

‘We want to give students an on-campus experience where safe and possible.’

Nearly two-thirds of respondents suggested that the major barrier to them adopting a different approach to learning and teaching in academic year 2021-22 was the digital skills of staff and students (61% (n = 22)). More than one-third of respondents selected technology (39%, n = 14) and the requirements for a continued COVID response (36%, n = 13) as barriers to change and around a quarter chose student pressure (28%, n = 10) and pedagogical concerns (28%, n = 10) (Figure 3).

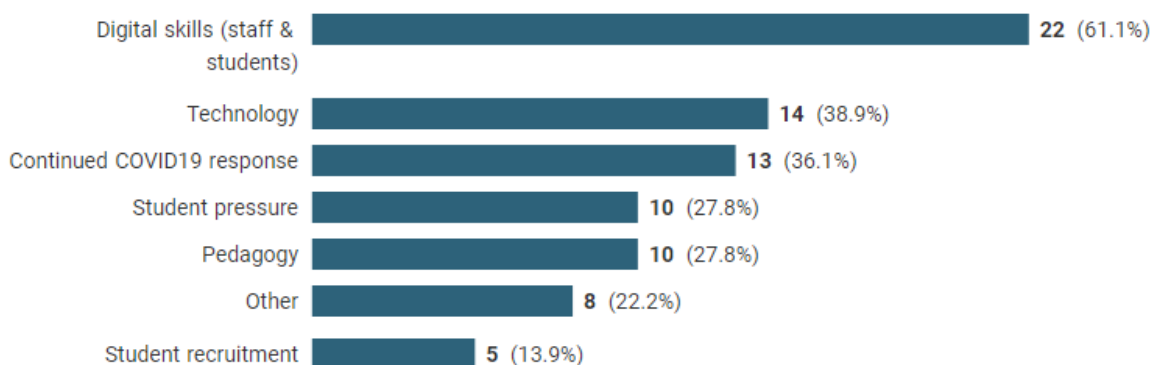


Figure 3 - What are the barriers for your institution adopting a different approach?

From those that answered ‘Other’ for the question presented in Figure 3, resources were a major factor, including digital infrastructure, estates and the support available from learning technologists. In addition, staff resistance to change, exhaustion and the need to take a longer-term view to ‘ensure alignment with future institutional strategy’ were cited.

Planning beyond academic year 2021-22

When asked about learning and teaching beyond the upcoming academic year, and (hopefully) post pandemic, 73% (n = 27) of respondents said they were planning for blended learning to be their main approach. Only 22% (n = 8) felt that face to face would be their main approach, with 3% selecting hybrid or online (n = 1) (Figure 4).

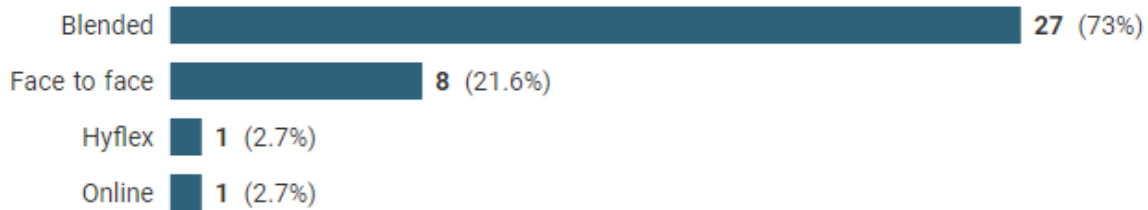


Figure 4 - Which of the following best describes the approach to teaching and learning being planned by your institution beyond academic year 2021-22?

When asked to elaborate on this there remained a large degree of uncertainty beyond the short term, but there was a general feeling that future learning and teaching will involve a greater mix of digital and face-to-face and that this would be driven by pedagogical priorities:

'It is too early to say at this stage - but the working assumption is that our students will return to campus and Covid restrictions will be lifted. That's not to say though that we will not carry forward some of the pedagogical practice that we have developed under Covid restrictions - in relation to flexible learning and a pivot to open assessment formats.'

'In the future there will be more digital scaffold..., more online routes... this just hasn't been completely ironed out yet'

While the responses shown in Figures 1 and Figure 4 show blended as the expected mode of teaching going forward, the importance of the face-to-face element was emphasised by many respondents:

'The move to hybrid teaching will certainly have changed teaching practice and we anticipate better use of the online space in on-campus programmes. However, this does not change the core mode of delivery away from on-campus.'

'Students are keen for face-to-face. Some Schools were already planning to move to blended learning before Covid and now continuing with their plans.'

'Generally, the feeling is that staff and students want to return to a predominantly face-to-face situation.'

Lectures

The uncertainty around plans beyond 2022 was also evident in thoughts on the future role of the lecture in UK HE. While, in 2021-22, 46% (n = 17) of institutions are planning fewer lectures than pre-pandemic, 19% (n = 7) are planning the same number, with 35% (n = 13) undecided (Figure 5).

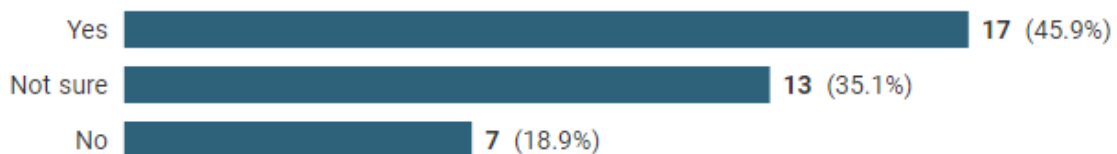


Figure 5 - Will your institution reduce the number of lectures in academic year 2021-22?

Looking beyond 2022, the number who are undecided rises to 51% (n = 19), with 32% (n = 12) planning fewer and 16% (n = 6) the same (Figure 6).

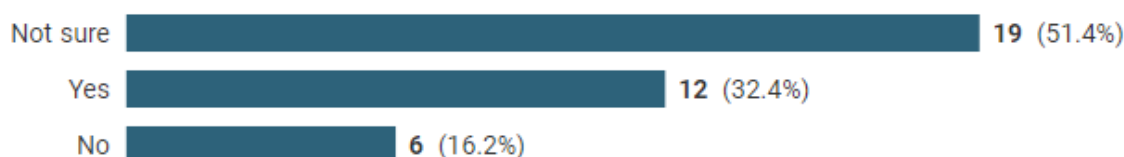


Figure 6 - Will your institution reduce the number of lectures beyond academic year 2021-22?

Learning spaces and technology

Nearly three-quarters of institutions (73%, n = 27) are planning to make changes to learning spaces in the next two years to support blended or hyflex approaches, 19% (n = 7) were unsure and 8% (n = 3) were not planning to make changes.



Figure 7 - Are you making changes to your learning spaces in the next 2 years to support blended or hyflex approaches?

These changes largely fell into two categories. The first of these was increased or improved audio-visual (AV) equipment:

‘This year introducing additional cameras and monitors to support hyflex where required.’

‘We are planning to add technology to rooms to provide 1) additional microphones to pick up student voices in larger rooms where live streaming may take place 2) additional equipment (mics, screens, cameras) in a smaller number of seminar rooms for hybrid interactive teaching to take place.’

‘Creating pilot HyFlex+ rooms on each campus with multi cameras/screens/mics to support fuller HyFlex experience.’

Secondly, institutions are beginning to think about the configuration of learning spaces to support more active forms of learning:

‘Exploring how spaces can be used to support hybrid delivery of sessions, what kind of space is needed, what tech is needed to best facilitate different types of

activities. What other kinds of spaces will be needed considering many work in open plan offices, will we need spaces to staff can go from delivering a face-face hybrid session to a fully online session.'

'Likely reduction in large lecture theatres. Increase in study spaces facilitated by a reduction in office space as agile working for staff becomes more commonplace.'

'Rooms being reconfigured away from traditional lecture theatre set-up to spaces for group and active learning.'

'We will be looking at more flexible study spaces outside of classrooms to allow students to engage more with online activities while on campus (if needed).'

'New classroom design to facilitate active learning.'

Institutions are also planning investment in new hardware and software - 78% of institutions (n = 29) are planning to invest in new technology to support hyflex or blended approaches, with 14% (n = 5) unsure and 8% (n = 3) with no plans (Figure 8).



Figure 8 - Are you investing in new technology (hardware and/or software) to support blended or hyflex approaches?

In addition to audio-visual equipment mentioned above, this included greater investment in video conferencing software, such as MS Teams and Zoom, increased use of online exam and assessment systems, and an expansion of lecture capture technology.

Assessment

The changes to assessment introduced in response to the pandemic in 2020 will remain for 2021-22 and beyond, with 78% (n = 28) of respondents answering that they would be making changes to their approach, 14% (n = 5) saying they are unsure and 8% planning no change (n = 3) (Figure 9).



Figure 9 - Are you making changes to assessment approaches in academic year 2021-22 and beyond?

The two main themes here were an intention to diversify assessment and to move away from exams, with a preference for more 'authentic' assessment, and a move to conduct and support assessment online:

'Exploring innovative ideas at the course level to build on the move away from campus-based exams enforced by Covid-19.'

'Continuing with online exams. Trying to reduce dependence on exams and increase diversity of assessment types.'

'We are encouraging staff to reconsider their assessment approaches to reduce the number of exams. We are also planning to continue with online exams, except where professional body requirements dictate they must be on-campus.'

'Majority of exams will stay online. Trying to encourage innovative and authentic assessment tasks.'

'The University is moving to online exams and we're looking at tools to diversify assessment.'

'Significant work underway on alternative assessments and reducing 'traditional' exam hall approaches except where necessary.'

'Continuing with online delivery of assessment. We're working on a curriculum design principles initiative and once this [is] complete we're hoping it will help to inform a wider review of assessment approaches, services and platforms.'

'We continue to work with departments to review assessment formats - with a strong preference for more open and authentic assessment design.'

'Big reduction in f2f exams and move to online assessment.'

'Adopted a digital assessment platform in 20-21 and continuing to develop this into 21-22 and beyond - adopting new approaches to assessment as we move forward, rather than continuing with the old processes simply moved online.'

'Moving to alternative more authentic forms of assessment and away from Exams.'

Digital skills

Staff

When asked specifically about digital skills, respondents felt that the skills of both staff and student were appropriate to support blended or hyflex approaches to learning and teaching.

In terms of staff knowledge of pedagogy to support blended or hyflex teaching, 86% (n = 32) felt that they were either good (n = 15) or adequate (n = 17), with 14% (n = 5) believing them to be poor (Figure 10).

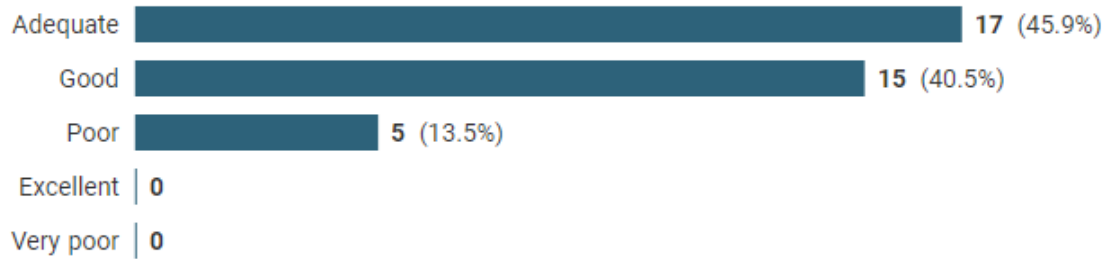


Figure 10 - How would you assess staff skills in pedagogy/learning and teaching at your institution to support a blended or hyflex approach?

Similarly, 81% (n = 31) felt that staff digital skills were either good (n = 11) or adequate (n = 19) to support blended or hyflex approaches, with 19% (n = 7) believing them to be poor (Figure 11).

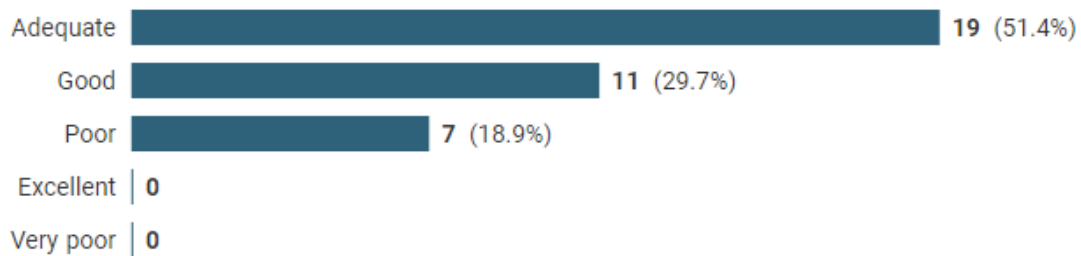


Figure 11 - How would you assess staff digital skills in your institution to support a blended or hyflex approach?

Students

As for staff, respondents were satisfied with the level of study and digital skills of students in relation to blended or hyflex approaches.

For study skills, 86% (n = 31) felt that student study skills were excellent (n= 1), good (n = 11) or adequate (n = 21), with 14% (n = 5) believing them to be poor (Figure 12).

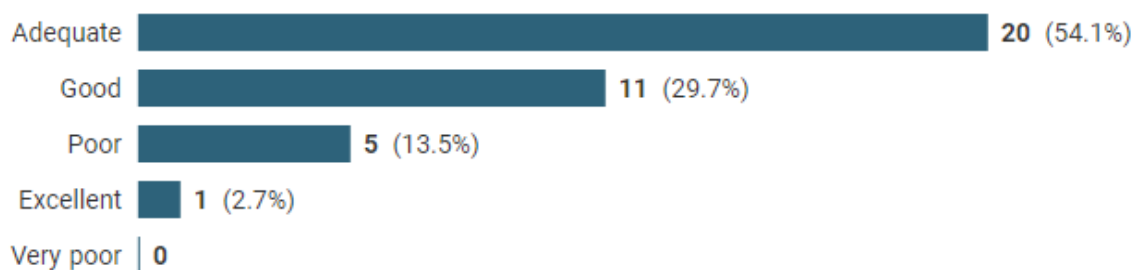


Figure 12 - How would you assess student's study skills at your institution to support a blended or hyflex approach?

For digital skills, 92% (n = 34) felt that student skills were either good (n = 13) or adequate (n = 21), with 8% (n = 3) considering them to be poor (Figure 13).

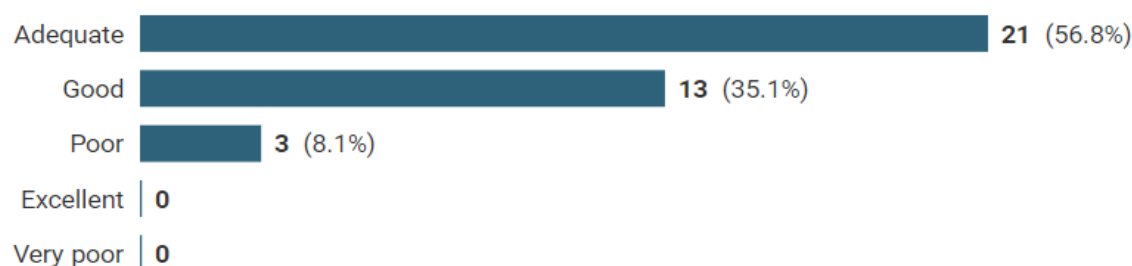


Figure 13 - How would you assess students' digital skills at your institution to support a blended or hyflex approach?

Despite these positive results, institutions are planning continued support for skills development. In pedagogy these will build on developments from 2020, with a focus on active, blended and hyflex learning and teaching:

'We are refreshing our pedagogical design training this summer - focusing on flexible and active learning design formats. This builds on the training programme that we offered to all our staff and GTAs last summer.'

'Building on our successful COVID response ed development programme to develop an improved educational development programme aimed at blended.'

'More staff development sessions, development of frameworks for supporting online teaching approaches better.'

'Many staff aren't sure yet if they want to adapt their teaching long-term or return to the status quo, so we are trying to meet immediate need and inspire them to think more creatively about what they can do.'

For digital skills, institutions are mostly planning for the continuation or development of existing programmes.

'Embedding support for students for digital skills in our welcome and transition programme.'

'For students, learning skills offer being updated to cover more on digital side of study skills. We already provide a lot of support for student digital skills.'

Some institutions are undertaking appraisal of staff and student skills and investing in new tools:

'We are using the Jisc surveys to review staff and student skills and are running a project to support student digital skills as there was a lack of support prior to this. We have purchased LinkedIn Learning for all students (staff had this previously) and will be deploying the Jisc building digital capabilities service for staff and

students to evaluate their digital skills. We are also working on a digital literacies framework in conjunction with the Library and IT.'

'Investment in JISC Digital capability and LinkedIn Learning.'

'We use Jisc's Digital Discovery tool, and have a range of support (either third-party, e.g. LinkedIn Learning, or developed in-house).'

Another respondent is looking at developing digital skills more broadly into the curriculum:

'Working with Skills development team (student-facing) to embed digital skills more broadly in the curriculum.'

Discussion

It can be seen from the results above that the response in HE to the COVID-19 pandemic will have a lasting effect on learning and teaching in higher education. Although it is not yet clear what final form it will take, the vast majority of HEIs surveyed here are planning long-term change in how teaching is delivered and how learning is supported and assessed, with the expectation that blended learning, with a greater integration of digital and face-to-face, will be the predominant approach.

Recently published research into student perspectives on blended learning (Armellini, Teixeira Antunes & Howe, 2021) suggests that students value quality learning experiences, including active learning, and emphasise the importance of regular interactions with academics and with their peers. This implies that HEIs will have to put a greater emphasis on the careful design of programmes and modules.

Despite the perceived benefits of and enthusiasm for a blended approach there remains unease in the sector around what might be classified as 'commercial' concerns about perceptions of value for money and student expectations (Dickson, 2021). Media reports suggest that some students equate a blended approach with reduced contact hours and as 'a way to cut corners without cutting tuition fees' (Hall (2021)) and over a quarter of respondents here cite student pressure as a barrier to change. This suggests that there is a tension between the perceived pedagogical benefits from the institutional side and the priorities of students. In addition, while blended learning might offer greater flexibility to students and, therefore, the opportunity for institutions to expand into new markets, there is also a need to balance the perceived pedagogical benefits with commercial considerations.

Despite the uncertainty in the sector, universities are investing in developing their learning spaces and the supporting technology in the anticipation of change. Most universities are planning or considering a move away from the central role of the lecture in teaching and some are, therefore, reconsidering the function and role of their learning spaces in the expectation of supporting more flexible and informal approaches to learning.

In addition to change in how and where learning takes place, the area expected to undergo the greatest change in practice is assessment. By the start of academic year 2021-22 institutions will have experienced 18 to 19 months where online assessment, and the increased use of coursework and open book online exams, has been the norm. While there has for some time been a movement in HE towards 'authentic' assessment (see, for example, Sambell, McDowell and Montgomery (2013) or Jisc (2020)) and for assessment to be constructively aligned to the curriculum and not to stand apart from it (Biggs & Tang, 2011), there is a desire to use the changes enforced by COVID-19 as an

opportunity to accelerate this process and to make positive alterations to practice in the longer term (Baughan, 2021).

This opportunity for change comes with major challenges though, both in assessment design and in the technology that supports it. As discussed by Walker and Jenkins (2019) an assessment *for* learning approach promotes the use of technology for collaborative and productive activity such as blogs, portfolios and digital storytelling alongside the traditional essay, moving on from the assessment *of* learning approach of MCQs and traditional exams. This presents a design challenge for individuals academics and for institutions who must also consider issues of academic integrity around the authorship of digital artefacts, minimising opportunities for plagiarism and contract cheating and grappling with the ethical issues around online proctoring.

As was shown in Figure 3, rather than pedagogical and technical concerns, the greatest barrier to the changes discussed above was concerns around digital skills. This response was somewhat contradicted in Figures 11 and 13, where confidence in staff and student skills was high, but nearly all respondents described the continuing and expanding work that they are doing in this area.

Conclusions

The results of this survey show that the Heads of eLearning at HEIs in the UK expect that the changes to learning and teaching made in response to the COVID-19 pandemic will accelerate developments in practice that were already under discussion in HE. There is an expectation that blended approaches will be foregrounded and that the lecture will be less important than pre-pandemic. As a result the spaces in which learning takes place will change and assessment will move out of the sports hall and be delivered online. These changes bring challenges in pedagogy and design, staff development and investment and there remains a tension between institutional desire for change and student expectations.

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