Foreword from Liam Earney
Managing director, higher education, Jisc

This is a critical time for higher education (HE), and understanding what students want from online learning will be crucial as the sector emerges from the pandemic. Jisc has been running digital experience insights surveys since 2016, and this is perhaps the most pivotal of them all. It shares feedback from almost 40,000 (38,917) students on their online learning experiences from 2020/21, an academic year that changed the landscape of HE forever.

At the start of the pandemic, staff across the UK made an impressive start, transitioning teaching online, improving their digital skills, and working hard to make the most of a demanding, unforeseen situation. More than half (57%) of students surveyed in this report rated the overall quality of online and digital learning highly, rating it as ‘good’ through to ‘best imaginable’.

A tumultuous year, many students grappled with difficult learning environments, faced technical issues, or found themselves needing greater support with their digital skills. Outside of their studies, a significant number struggled with their mental health, and many have had to re-evaluate the changes, supporting organisations to assess, adapt, and optimise their digital learning offers.

Although there were positive aspects to online delivery during lockdown, many students couldn’t access reliable connectivity. 63% of students surveyed in this report encountered problems with poor wifi connections, 30% had problems accessing online platforms and services, and 24% faced problems with mobile data costs.

Technology plays a key role in the government’s levelling up agenda, which aims to improve opportunity and boost livelihoods across the country as we recover from the pandemic. A positive collaboration between education, telecommunications, and government is crucial so that no one is digitally excluded as the sector emerges from the pandemic. Technology can offer international collaboration opportunities, immersive training, and personalised learning experiences that are strong enough to compete with mainstream technologies already used elsewhere.

By keeping up with other industries, universities with competitive blended learning offers are set to flourish in the years ahead. For that, comprehensive digital strategies need to be put in place. With 65% of students turning to their fellow students for support with online learning, and 40% rating the support for online learning as average, poor or worst imaginable, it’s evident that digital skills need to be made a sector priority.

Sharing good practice will also be crucial to successful digital transformation in HE, with plenty of strong examples in this report. Other areas explored include tackling participation barriers, making support for online learning and digital development clearly visible, and making the most of data.

Listening to student feedback, however, is the starting point. The rapid digital transformation achieved by universities last year was no mean feat, and it changed the experiences of almost 40,000 higher education students. We hope that this report serves as a useful starting block to help understand how those students found that transition, supporting organisations to assess, adapt, and optimise their digital learning offerings around the UK.

After all, students are the reason universities exist, and they deserve the best learning experience possible. Of course, delivering world-class online and blended learning at scale will require substantial resources, and we know that universities are still dealing with huge challenges and changes - but by listening to our students and staff, we can identify the positive changes seen in universities and global research. If we capitalise on these, the benefits stand to be immeasurable.
Executive summary

Digital transformation gathers pace

The challenges in bringing about digital transformation for the HE sector have been thrown into the spotlight by the coronavirus pandemic and have reinvigorated the drive to make effective use of digital. Many universities have embraced these challenges and students have acknowledged the support they have received from staff during difficult, and sometimes fast changing, circumstances.

Building on our learning and teaching reimagined initiative of 2020, the data gathered from our 2020/21 student digital experience insights survey for higher education highlights areas for concern as well as examples of good practice to build on for the future. Note that this year, we focused on online learning. We asked students to respond to the questions based on their experiences in the two weeks immediately prior to taking the survey.

Tackling barriers to participation in online learning

With the majority of learning taking place online, too many students encountered problems when attempting to do so. 63% of students said they had problems related to poor wifi connectivity and 24% cited mobile data costs as an issue. Students from Black/African/Caribbean backgrounds were more likely to say they had no access to a suitable computer/device than the data set generally. Students studying online, on campus or in public places were more likely to cite problems across a range of issues.

Prerequisites for online learning and teaching include:

- Good, reliable and affordable wifi
- Suitable devices to work from, equipped with both general and subject specific software and apps
- Easy and reliable access to platforms that enable them to communicate with peers and tutors
- Access to resources and materials to support learning
- Opportunities to learn collaboratively
- The ability to submit work for marking and to receive timely feedback
- A safe and private place to work
- Clear signposting to support services (both technical and study-related)
- Shorter chunks of learning and regular breaks helped to mitigate physical discomfort in working online and made it easier for students to maintain concentration
- Embedding interactive and collaborative activities into learning design is a vital pedagogical aspect of curriculum design that can positively contribute to mental wellbeing and mitigate against issues such as loneliness, isolation and lack of motivation to study
- Poor learning design has a negative impact on students’ wellbeing on top of any difficulties students experience in accessing the learning and resources.

Design specifically for online learning

Students told us about the lengths their lecturers and tutors had gone to in supporting them to learn; creating new and engaging resources, using discussions, quizzes and polls, and replying to individual queries via email. Lecture recordings were well received and helped students to manage their study around other commitments.

However, not all students had opportunities to engage in more transformative activities or experience the best that digital approaches can offer.

- Online and hybrid learning are different to face-to-face learning and should be designed specifically with this in mind
- Collaborative activities naturally increase student engagement and make the learning experience more enjoyable. They also provide vital opportunities to develop key employability skills such as effective online communication and co-operative research/design
- Poor learning design has a negative impact on students’ wellbeing on top of any difficulties students experience in accessing the learning and resources.

• Students would like lecturers and tutors to be mindful of the volume of work and independent study asked of them.

• Small groups work best for discussions and collaborative activities – they can also feel safer socially.

• Just as for face-to-face sessions, co-ordinated timetabling prevents clashes in delivery and avoids students having to endure marathon back-to-back sessions on any one day.

• Students recognise that it can be hard for teachers to ‘read the room’ online or to get the pace right – regular check-in points built into curriculum activities can help.

Make support for online learning and digital development visible

Universities provide a lot of support for students, but our findings suggest that some of this was less visible or easily accessible to them when studying online. High numbers of students look to their lecturers and tutors for help with online learning so it is vital that staff too are well supported and able to confidently guide and support students with their digital skills development and signpost specialist and self-help options. Very few students cited e-learning and library staff as people they would turn to for help – perhaps examples of other key services that became less accessible as learning moved off campus?

Ensure learning platforms are clearly structured and easy to navigate

A common plea from students was for the systems and platforms used to support their learning to be better structured and for all information to be in one place. Students found managing information spread over several platforms and in different formats confusing and difficult to manage.

• Consider adopting a common framework/template across modules

• Provide familiarisation exercises and show students where and how they can access the resources that are available to them as a regular part of lecture delivery.

Work in partnership with students

Students thrive best when they are active participants in their learning. The responses to the free text questions show that they are keen to be involved and can not only provide insight into what works and doesn’t work well for them, but also have useful suggestions for how their learning can be improved.

This year, 35% of students agreed they were given the chance to be involved in decisions about online learning. While this is an improvement on similarly phrased questions in previous years, the figure is still quite low. 39% disagreed.

Make the most of your data

Of course, all students are unique, what works for some does not work for others. It is vital that the universities who took part in the survey share their findings with their students. Focus groups to discuss key findings with students can provide further insight and an opportunity to show how you are working to improve their digital experience.

Support from Jisc

Digital at the core: a 2030 strategy framework for university leaders

Jisc, Universities UK and Emerge Education have worked with technical partner Salesforce to develop a long-term digital strategy framework for university leaders.

Technology-enabled teaching and learning at scale

From fixes to foresight: Jisc and Emerge Education provide insights for universities and startups.

Rethinking assessment

Has the pandemic helped to move us to an assessment system that is more relevant, adaptable and trustworthy? Read our rethinking assessment report.
Theme one: you and your current learning situation

In theme one we wanted to establish how students were learning. This included their expectations of what their study experience would be like, the actual lived reality (type and location of learning) and whether they had experienced any problems.

Expectations of course
- 37% blended online/campus learning
- 55% fully on campus
- 8% fully online

Mode of learning
- 1% physically on site
- 12% a mix of physically on site and online learning
- 87% online learning (with the other students on course/shielding/quarantine)

Given the ongoing pandemic, it is perhaps surprising that so many students expected their course to be delivered fully on campus. Very few anticipated that it would be fully online and the reality was that 87% of students learning took place online.

Problems encountered when learning online
- 63% poor wifi connection
- 30% access to online platforms/services
- 24% mobile data costs
- 22% need specialist software
- 21% no safe, private area to work
- 15% no suitable computer/device

Online learning is dependent on reliable wifi connectivity, and many students experienced difficulties with unstable connections, breaks in service and poor quality which impacted on their learning. Not all students had access to a suitable computer/device or a safe, private space in which to work.

Students from Black/African/Caribbean backgrounds were more likely to say they had no access to a suitable computer/device than the overall survey data and also cited issues with mobile data costs, along with students from Indian/Pakistani/Bangladeshi backgrounds.

Students studying online, on campus or in public places were more likely to cite problems across a range of issues.

Where were students doing their online learning? (could tick all that apply)
- 76% at home, own or family home
- 29% student accommodation
- 9% on campus in study spaces, libraries etc
- 2% off campus in public spaces (eg cafes)
- 1% I have not been learning online

Approximately three-quarters of students were taking part in online learning from home but just under a third were doing so from student accommodation. Very few were studying elsewhere.

Use of assistive technologies
16% of students said that they used at least one of four assistive technologies but only 40% of those who said they used them were offered support to do so.
- 9% screen readers (text to speech)
- 9% dictation (speech to text)
- 2% alternative input devices (eg switches)
- 6% screen magnification
- 82% none of these

Student quote: “Having music lessons or performance classes online is very difficult and connection issues mean that doing it over FaceTime or Zoom simply doesn’t work.”

Student digital experience insights survey 2020/21 UK higher education (HE) survey findings
Theme two: digital platforms and services at your organisation

In theme two we looked at how well students felt their organisation supported them with the technology they needed to access online learning – the learning environment, the digital platforms, systems and services. Also important is how effectively the organisation communicated with students, facilitated collaboration online, and to what extent organisations involved students in decision-making about online learning.

Involving students in decisions about online learning

- 35% agreed they were given the chance to be involved in decisions about online learning (36% neutral, 29% disagreed)

It is encouraging to see that over a third of students felt they had an opportunity to be involved in decisions about online learning. This is a significant rise from similar questions asked in previous years and, although low, shows a positive forward trend.

Organisational systems, services and support

The percentages of students who agreed with statements about technology in their organisation were:

- 68% enabled to access online systems and services from anywhere (26% neutral, 7% disagreed)
- 60% communicated effectively online eg email, messaging, notifications (28% neutral, 12% disagreed)
- 54% supported to use own digital devices (35% neutral, 10% disagreed)
- 46% provided a good online environment for collaboration (36% neutral, 18% disagreed)

Generally students agreed that they were enabled to access organisational systems, services and support although a relatively high number of students disagreed that the online environment supported collaboration – an aspect of learning that students find valuable and particularly missed during COVID-19 lockdowns.

The learning environment

The percentages of students who agreed with various statements about their learning environment were:

- 68% safe and secure (28% neutral, 3% disagreed)
- 47% reliable (38% neutral, 15% disagreed)
- 46% easy to navigate (36% neutral, 18% disagreed)
- 41% well designed (42% neutral, 16% disagreed)

High percentages of students agreed their learning environment was safe and secure. Less than half agreed that it was reliable, easy to navigate or well-designed.

Analysis of the free text statements made by students suggest that streamlined structures implemented consistently across all modules could improve their ability to use the learning environment more effectively.

Student quote:
“Make changes to the learning environment so it’s more streamlined and so that every course module follows a similar structure (course information, seminar links etc) so you always know where to look.”
Theme three: technology in your learning

Theme three explored how technology had been used in learning, the range of learning activities students experienced, the quality of the materials used as well as the overall quality of online and digital learning.

Range of learning activities

The percentages of students who said they had carried out the following online learning activities in the last two weeks prior to taking part in the survey were (can tick more than one):

- 84% live lecture/teaching session
- 82% accessed recorded lecture/teaching session
- 79% accessed other course materials eg notes, assignments
- 61% submitted coursework
- 50% online discussion with lecturer
- 49% received feedback on their work
- 39% interacted with quizzes/games/tests
- 36% worked on a group project eg shared report
- 35% online research tasks
- 17% virtual lab, practical or field work

High numbers of students reported taking part in live sessions, some of which were described as engaging and helpful in promoting discussion. Fewer students said they had engaged in some of the more collaborative online activities. As more staff engage with online learning it is expected that models and practice will develop to include more participative activities.

Quality of online learning materials

The percentages of students who agreed with statements about the quality of online learning materials were:

- 53% well designed (36% neutral, 11% disagreed)
- 45% at the right level and pace (38% neutral, 18% disagreed)
- 35% engaging and motivating (41% neutral, 24% disagreed)

Given the sudden change to entirely online learning, it is perhaps unsurprising that the numbers of students who agreed that online learning materials were well-designed, at the right level and pace and engaging and motivating are lower than is desirable.

Some students reported difficulties in accessing core readings and library resources and some specifically asked for training and support in using online resources for themselves and for lecturers.

Overall quality of online and digital learning

Overall, students were positive about the quality of online and digital learning on their course. 67% of them rated it as ‘best imaginable’, ‘excellent’ or ‘good’. Satisfaction ratings from students who lacked access to suitable computers/devices and had no safe, private space to work were lower.

- 3% best imaginable
- 21% excellent
- 42% good
- 21% average
- 8% poor

- 3% awful
- 1% worst imaginable
Theme four: your digital skills

How well supported did students feel in getting to grips with online learning? Theme four looks at the guidance and opportunities students were offered to develop their digital skills and whether they felt these were enough to help them achieve the learning expectations placed upon them.

Overall support for online learning
Students were positive overall about the support they received for online learning. 60% of all respondents rated it as being either ‘best imaginable’, ‘excellent’ or ‘good’.

- 4% best imaginable
- 19% excellent
- 38% good
- 26% average
- 10% poor
- 3% awful
- 1% worst imaginable

Support and guidance

The need for digital skills has accelerated as a result of the pandemic — both for learning and for future employment. It is therefore vital that students have opportunities to assess and develop these skills throughout their study as part of their curricula.

Developing students’ digital skills

The percentages of students who said they were offered support or training to develop digital capabilities were (can tick more than one):

- 54% learning online
- 51% avoiding plagiarism
- 29% basic IT skills
- 27% specialist software for your course
- 27% tracking your progress and achievements
- 26% behaving safely and respectfully online
- 21% keeping personal data safe
- 18% protecting your privacy in online spaces
- 17% information and data literacy

Many of these statistics are lower than expected, which perhaps indicates that students may not be aware of what support is available. Ensure your offer is clear and well presented, not just on induction but at regular and appropriate points throughout the overall learning journey. Make staff aware of the support too so that they can embed opportunities to signpost support within subject delivery.

Confidence in aspects of learning online

The percentages of students who agreed with questions set specifically in the context of the current pandemic situation were:

- 51% learning online made students feel safe (36% neutral, 13% disagreed)
- 49% could access all the university support services they needed online (34% neutral, 17% disagreed)
- 42% the learning expectations placed on students had been reasonable (31% neutral, 27% disagreed)
- 33% the concerns of students and their representatives were being heard (42% neutral, 26% disagreed)

There was modest agreement with most of the statements, but high levels of neutrality. High numbers of students did not agree that the learning expectations placed on them had been reasonable.

Engaging in discussions with students and further exploration of why they gave these responses could provide useful insight as to how online learning could be improved.

Where do students go for help with online learning?

(cannot tick more than one)

- 65% other students on your course
- 60% lecturers/tutors
- 46% online videos and resources
- 33% friends and family
- 17% IT/e-learning staff
- 9% don’t need help
- 7% library staff

Students are accessing a variety of support options to help them with online learning. Over the years there has been a rise in use of online videos and resources but references to lecturers/tutors and other students are consistently high. Very few said they turned to library staff in this period and yet most libraries and resource centres provide this type of support.

Female students were more likely to turn to other students and friends and family, male students were more likely to turn to online videos and resources or say they didn’t need help?

Student quote: “Provide greater support for students who typically would not have to rely so heavily on ICT based methods of learning.”
Student quote:
“The delivery of our anatomy teaching has been exceptional. Multiple short videos were very easy to follow, followed by quizzes which were very helpful for learning.”

Listening to student voices

Students were asked to say what they thought were the most positive and negative aspects of online learning, how they felt the quality of online and digital learning could be improved and what one thing they felt their universities should do to help them learn effectively online. Their responses reveal that learning preferences are very individual – what some students really like, others do not.

The most positive aspects of online learning

There were 28,813 free text responses to this question. Students were positive about:

The effectiveness of online learning

• Some students found that online learning has been as effective for them as in-person teaching, and that the move to online learning hasn’t been an impediment

Access to recorded content

• Students liked being able to access recorded lectures, to watch them again at any time and at their own pace. Their ability to control the speed at which they engage with the information is particularly helpful (eg pausing, rewinding, fast forwarding)

Interactivity and ease of communication

• Students reported that the more interactive online sessions made it much easier to ask lecturers questions (eg in chat in Teams or Zoom) than compared to traditional in-person lectures. Many felt more confident in communicating this way and said that they were getting more from the experience

Small groups

• Small seminar groups were effective in terms of facilitating discussion and engagement. Some students felt contributing in this way was easier for them than live sessions

Appreciation for help and support

• Students recognised that tutors also needed time and support to adapt to online learning and, in some cases, had found it necessary to provide more pastoral support than normal. They really appreciated the ongoing help, support and communication their lecturers and tutors had provided

Convenience and safety

• The flexibility of learning online was noted. Being able to work from home and fit studies around work and other commitments has been a particular benefit. Some commented that they felt safer doing so, personally and in relation to keeping their families safe. Students also appreciated savings in time, travel and money that they attributed to online learning

Student quote:
“The online seminars are my favourite part of the course; they give good opportunities for discussion with lecturers and students.”

Student quote:
“Tutorials in some classes have been very well done, they promote engagement and interaction between both students and the lecturers.”

Student quote:
“The delivery of our anatomy teaching has been exceptional. Multiple short videos were very easy to follow, followed by quizzes which were very helpful for learning.”
The most negative aspects of online learning

There were 31,097 free text responses to this question. The most negative aspects for students were:

Impact on the university experience

- Some felt that working exclusively online had a negative impact on their overall university experience. They saw the social aspects of their experience as being as important as their learning. They missed not being able to talk to lecturers and peers in person.

  
  **Student quote:**
  
  “Everything has been stripped away from us – the social aspects of in-person learning, the discussions with mates outside the lecture halls, walking and talking after lectures.”

Technical and access issues

- Unsurprisingly, poor quality or unreliable wifi had a major negative impact on learning, as did technical issues. Students reported difficulties in accessing resources, particularly library resources. Some found the learning environments difficult to access and to navigate.

  
  **Student quote:**
  
  “I live in a rural location and only have access to mobile broadband which makes me so nervous that the internet will fail me every time I do online exams.”

Online lectures can be unengaging

- While some students reported positive experiences, others found the format of online lectures difficult. Use of chat during live lectures was sometimes disruptive, particularly if off topic.

  
  **Student quote:**
  
  “Many students do not participate. They can easily turn their cameras and microphones off during seminars and not contribute to discussions. Very frustrating.”

Fatigue and concentration

- Long lectures or periods of time spent online impacted on concentration, motivation and wellbeing.

  
  **Student quote:**
  
  “I’ve been told by my lecturer that, despite understanding that accessing expensive software might be a difficulty, work submitted using alternative/free equivalent software will be marked down.”

Isolation and loneliness

- The feelings of isolation caused by the inability to meet people and make new friends was shared by many respondents.

  
  **Student quote:**
  
  “I would start my courses already knowing how to complete tasks by interactive live seminars that built on recorded content.”

Improving the quality of online and digital learning and helping students to learn effectively online

Students were asked what one thing their organisations should do to improve the quality of online and digital learning (26,298 free text responses) and what one thing their organisation should do to help students learn effectively online (20,489 free text responses). Students would like universities to:

**Acknowledge that online learning is different and design accordingly**

- Design learning specifically for online/hybrid delivery as opposed to re-purposing more traditionally delivered episodes of learning.

Key considerations include:

- Consider wellbeing as an integral aspect of curriculum design

- Students are spending significant periods of time online which can be exhausting and impact on physical and mental health so consider session length and provide regular breaks during and between sessions.

- Support teaching staff as they endeavour to improve online learning.

**Ensure students can access the technologies they need**

- Check that students and lecturers have access to appropriate technologies, devices, software and reliable wifi.

**Improve group and class interactions**

- Students felt that smaller class sizes improved learning and encouraged group discussions. Suggestions for improving peer-to-peer and student-lecturer interactions included:
  
  - Use of breakout rooms
  
  - One-to-one discussions
  
  - Encouraging students to have their cameras on to make the situation feel more normal (NB: others find this intimidating or may feel it inappropriate to do so if they don’t have a private place to work)
  
  - Quizzes, polls and time set aside for socialising before a class.

**Consult students**

- Work with students as active participants in their study as part of the quest to ascertain the best/most effective ways of delivering learning online.

**Make online platforms more user-friendly**

- Improve the functionality, reliability and structure of online platforms and learning environments.

- Establish consistent layouts and structure across all modules.

- Use an established core suite of tools to avoid overloading students with multiple technologies. Use of multiple platforms can be confusing. Nobody wants to stifle creativity but using too many platforms and technologies makes it hard for students to find key information and remember where things are stored. Difficulties in remembering multiple login details can also be an issue.

**Record lectures – including those that are live**

- There was mixed reaction to whether lectures should be live or pre-recorded. Considerations included the enjoyment of more active engagement in live sessions and the value of being able to watch again/in own time and to study/take notes and develop learning beyond live sessions.

- Many favoured a blended or hybrid approach eg where live or pre-recorded sessions were followed by interactive live seminars that built on recorded content.

- Students with work, childcare or other commitments rely on recorded lectures when unable to participate live.

**Improve access to support and online materials**

- Provide training and support for students to ensure they get the most from online and hybrid learning.

- Some students felt there was an expectation that they would start their courses already knowing how to use these when in reality, not all had the skills they needed.

- Improve access to online resources – course-related and those available from the library.

**Communicate and provide constructive feedback**

- Some respondents felt they were being left to struggle on alone with online learning. Technological issues, access to resources or even to simply understand what was required of them.
Get involved

See the digital experience through the eyes of your students and staff

Our 2021/22 digital experience insights survey for students will open in October 2021.

If you would like to find out more about your students' digital experience or if you are interested in participating in our other surveys for teaching staff, professional services staff and researchers, please contact us at help@jisc.ac.uk putting 'digital insights' in the email subject line.

Find out more at: digitalinsights.jisc.ac.uk

Supporting you

Higher education strategy 2021-2024: powering UK higher education

See how our HE strategy for 2021-2024 will support universities towards a technology-empowered future.

Learning and teaching reimagined

Working with you to help plot your organisation’s path to the future of higher education.

- Read the report, learning and teaching reimagined: a new dawn for higher education
- Explore the research, visions of the future, examples of emerging good practice and tools to get you started
- Let’s work together to transform your digital experience

Contact your account manager: https://jisc.ac.uk/contact/your-account-manager

Acknowledgements

Our thanks go to our expert panels of higher and further education representatives, who assisted us in shaping this report, and all the universities and colleges who took part in the student insights survey this year.