

Student digital experience insights survey 2022/23

UK higher education (HE) survey findings

Jisc data analytics

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Introduction

The digital experience insights survey for higher education students took place between October 2022 and April 2023. Participating universities were able to select their own survey period within these dates, typically a three to four week window.

There were 27,131 respondents from 40 different universities. 25 of these were based in England, seven in Scotland, six in Wales and two in Northern Ireland. These 40 organisations represent 13% of all higher education providers in the UK.

The highest number of responses from a single organisation was 3,882 students (11% of their total student population) and the mean number of responses was 678 per organisation (on average 4% of the total number of students in each organisation that participated). However, nine of the 40 organisations contributed fewer than 100 responses.

A survey indicating the digital experience of further education learners is run simultaneously and results can be found on our 2022/23 FE learners report page.

Through Jisc's digital experience insights service, organisations can gain valuable data to inform strategic, operational and digital investment decisions, evidence year-on-year improvements and demonstrate return on investment. Organisations that take part have access to their own data to assess their unique situations as well as benchmarking data. Full information about the digital experience insights surveys is detailed on our **information page**.

Summary

Our 2022/23 digital experience insights survey for students in higher education explored some of the key aspects of learning using digital technology. Students continued to receive positive benefits from the digital technologies provided as part of the learning and teaching experience in universities. Most students experienced at least some form of learning using digital technology and it is clear that it now forms an integral part of the HE learning experience. Universities generally provided a good online learning environment and satisfaction with online learning is now higher than it was before the pandemic. However, the reality of the hybrid learning experience is that the many positive roles technology plays are accompanied by persistent negative aspects that disadvantage or hinder the ability of some students to learn.

Student preferences for learning using technology are variable, and organisations should continue to offer and improve the range of platforms and modes of learning that can cater to these preferences. Some key elements, such as the quality and timeliness of online learning resources should be addressed. Organisations also need to assess the support offered for students throughout the academic year for a range of digital skills relevant to their course and digital capabilities relevant to their future workplaces. Digital and data inequity remain major issues for many students, who struggle with private places to work, with reliable internet connections, mobile data costs, and with access to digital devices and tools. These issues have become more problematic since last year's survey, and are likely only going to become more acute with the continuing cost of living crisis. Within their capabilities, organisations should look at how they can address some of these issues.

Organisations have a significant amount of work to do in improving how they make students aware of data collection practices as many students were unaware of how their data was collected and used. Students also tended not to be involved in the decisions about their digital experience. However, the student voice should be valued: our survey highlights their positive and negative experiences and their thoughts on the use of digital technology. By responding to the issues they raise, organisations will be able to provide a more responsive and supportive learning environment for them. In turn, they will be able to more equitably develop the skills and knowledge they need to succeed beyond university.

Methodology

The question set

The core question set contained 37 questions (of which four of these were open ended qualitative questions). These often had sub-questions making the total number of individual questions a maximum of 58. All questions were optional so that respondents could leave questions blank if they did not wish to answer.

Most questions were locked (standardised across all insights surveys) to allow benchmark comparisons. Additional pages were customisable so that organisations could add additional questions pertinent to their local needs. All relevant closed-ended questions had a non-response rate of 6% or less (with a median non-response rate of 3.2%).

Qualitative open-ended questions

All qualitative open-ended questions were analysed using semi-supervised topic modelling, a form of Natural Language Processing (NLP). This used the CorEx algorithm, implemented in Python, using anchor terms developed with domain experts in Jisc to steer the model towards creating the most useful set of topics for classifying responses.

The algorithm then classified the responses from the survey according to the topics in the model, and this could be used to interpret the answers to the question. The analysts developed narratives based on this analysis, using visualisation tools such as Tableau or PowerBI.

Uses and limitations of data

The data is not weighted to match the national HE student population (eg by gender) and therefore we advise against comparing at the level of individual percentage points across the years, especially as the questions and answer options have changed slightly between the years. Additionally, different organisations have taken part in the survey year-on-year, so direct comparisons across the years should be treated with a degree of caution even when the question wording is exactly the same.

Please note that the number of responses is sometimes greater than the number of people who responded to a question (for the 'tick all that apply' questions) and so percentages may total above 100%. Totals may also not come to 100% due to rounding. Null responses are excluded in all calculations.

Survey findings

Theme one: you and your technology

In the first theme, 'you and your technology', we established student demographics (including age, location, gender, ethnicity and impairments that may impact learning). We also established key statistics on the devices and technologies used for learning.

Gender of participants

- 63% female
- 34% male
- 1% prefer not to say
- 1% prefer to self describe

Level of study of participants

- 3% foundation
- 63% undergraduate
- 29% postgraduate
- 1% apprenticeship
- 3% other

International and overseas students

- 67% UK students
- 30% international students studying in the UK
- **3%** international students studying in normal country of residence

Number of years participants have studied

- 51% less than a year
- 14% 1 year
- 16% 2 years
- **12%** 3 years
- 7% 4 years or more

Participants with learning differences, health conditions or impairments

- 80% no
- 20% yes

Age of participants

- 9% 18 or under
- 36% 19 to 21
- 19% 22 to 24
- **13%** 25 to 29
- 23% 30 to 59
- 1% 60 and over

Ethnicity of participants

- 27% Asian or Asian British
- **9%** Black, Black British, Caribbean or African
- 4% Mixed or multiple ethnic groups
- 58% White
- 3% Other

Devices used regularly for learning

(could tick all that applied)

- 94% laptop
- 71% smartphone
- 27% desktop computer
- 26% tablet
- 21% microphone/headset
- 19% camera/webcam
- 11% additional screen
- 2% other
- 1% virtual reality headset

The vast majority of students used a laptop for learning while just over a quarter used a desktop computer. 71% of students used a smartphone for learning and approximately a quarter used a tablet.

Smartphone use is usually in addition to other devices: only 1% exclusively used a smartphone for learning (15% exclusively used laptops, 1% exclusively used desktops). More men used desktops (37%) than women (21%).

A growing number of students are using microphones/headsets (21% in 2022/23 compared to 14% in 2021/22) and cameras/webcams (19% in 2022/23 compared to 6% in 2021/22).

The use of virtual reality devices was rare overall (1%).

Devices given or loaned

- 88% no
- 12% yes

Most (88%) students were not given or loaned devices.

Use of tools or features that assist learning

(could tick all that applied)

- 28% captions
- 26% spelling/writing support
- 17% screen reader
- 16% transcripts
- 15% dictation
- 10% screen magnification
- 3% alternative/ergonomic devices
- 2% other

57% of students used at least one assistive technology tool, feature or device. Of those who reported to use other features (2%) the most common were screen tinting or overlay tools.

International students tended to use captions, transcripts and spelling support more than UK students. Younger (21 or under) students tended to use captions more than older (22 or over) students.

Support required to use assistive features

- 85% no
- 15% yes

Most (85%) students did not require support to use assistive technology features or tools but a significant minority did require support.

Support offered to use assistive features

- 57% no
- 43% yes

Of those who required support, less than half (43%) of students were offered it. In last year's survey we phrased this question, "Have we provided any support to use these features?", to which 30% responded 'yes'. This is a slight improvement, as more support was being offered than taken up, but it is concerning that most students were not offered any support.

Theme two: technology at your organisation

In theme two, 'technology at your organisation', we investigated what students felt about how their organisations supported them with the technology required to learn online. This included what tools or features were offered as part of the digital learning environment, how well organisations supported students to access systems and services off campus, and how well students understood how their data was collected and used by universities. Students also indicated their preferences for future digital investment.

The online learning environment

- 4% best imaginable
- 29% excellent
- 48% good
- 14% average
- 3% poor
- 1% awful
- 0% worst imaginable

81% of students considered the online learning environment to be above average (best imaginable, excellent or good). Only 4% considered the online learning environment to be below average (poor, awful or worst imaginable).

Support for devices, communication and access to services

- **61%** agreed they were supported to use their own devices (31% neutral, 8% disagreed)
- **71%** agreed they were supported to access platforms and services off campus (23% neutral, 6% disagreed)
- **66%** agreed they were supported to communicate effectively online (26% neutral, 8% disagreed)

Students were generally positive about the various aspects of support for using systems and services at their organisation. They felt

slightly more negative about the support given to them to communicate effectively than they have done in previous years. In 2019/20, 75% of students agreed that they were supported to communicate effectively online.

Technologies that support learning (could tick all that applied)

- 76% recordings of live sessions
- 70% recorded/pre-recorded content and resources
- 60% online assessment/testing platform
- 49% live stream of lectures
- 49% virtual learning environment
- 37% dashboard for tracking own progress
- **27%** applications that support collaborative activities
- 14% e-portfolios
- **5%** alternative/virtual/extended reality (AR/VR/XR) technologies
- 4% none of these

Most (89%) students were provided with at least one of: live streams of lectures, recordings of live sessions, or recorded/prerecorded content or resources. 60% of students were able to use online assessment or testing platforms, making this a salient feature of the HE experience.

The percentage of students who reported having access to virtual learning environments for their learning is surprisingly low (49%) for 2022/23 given the high rate of positive responses in 2021/22 (82%). This may be explained by the fact that we removed examples of VLEs from the question text in 2022/23, suggesting that students did not immediately understand what a "virtual learning environment" was without brand names as examples.

Useful digital tools or apps

Students were asked to provide an example of a tool or app they found useful for learning. There were 19,521 responses to this question.

The top three tools or apps cited were virtual learning environment or online learning platforms: Canvas, Blackboard and Moodle.

The top 10 tools or apps named by students were:

- 1. Canvas (17%)
- 2. Blackboard (15%)
- 3. Moodle (3%)
- 4. Microsoft Teams (3%)
- 5. Grammarly (3%)
- 6. YouTube (3%)
- 7. Panopto (2%)
- 8. Microsoft OneNote (2%)
- 9. Google Scholar (2%)
- 10. Microsoft Word (2%)

Data collection and use

- **38%** agreed that they understood how their university collected and used their data (35% neutral, 27% disagreed)
- 44% agreed that they were comfortable with how their university collected and used their data (50% neutral, 6% disagreed)

Only 38% of students agreed that they understood how their university collected and used their data and less than half (44%) were comfortable with how their data was collected and used.

Future investment preferences

- 35% upgrade platforms and systems
- 25% specialist course software
- 15% more computers and devices
- 14% digital content
- 11% IT support

When provided with the option to select one category of the digital environment for their universities to invest in, students tended to prefer investment in platforms and systems.

Theme three: technology in your learning

In theme three, 'technology in your learning', we looked in detail at how technology was used in learning, alongside students' preferences. We highlighted a range of issues with which students may have experienced problems while using digital technologies, in both on and off campus learning contexts. We also investigated the wide range of activities students engage with as part of their learning, as well as their opinions on the quality of learning resources.

Quality of online learning

- 5% best imaginable
- 29% excellent
- 45% good
- 15% average
- **4%** poor
- 1% awful
- 0% worst imaginable

The majority of students (80%) rated the quality of their course's online learning as above average (best imaginable, excellent or good). This is higher than the prepandemic high of 77% (2019/20 survey). Only 5% rated the quality of online learning as below average

Location of learning using technology

(could tick all that applied)

- 88% at home: own, shared, family
- **79%** on campus: study spaces, libraries, lectures, labs
- 40% public spaces (eg cafes)
- **39%** student accommodation
- 18% at work
- 0% none of these

The vast majority of students used technology for learning at home and/or on campus. The increase of students using technology for learning on campus compared to 2021/22 is stark (79% vs 27% in 2022/23). However, it should be noted that this question was reworded. In previous years we asked, "When you are learning online, where do you tend to be?", while this year we asked, "When you are learning using technology, please tell us all of the places that you do this".

This rewording may also explain a large increase in students working in public spaces like cafes (40% in 2022/23, up from 8% in 2021/22) and at work (18% in 2022/23, up from 4% in 2021/22).

Students were flexible in where they used technology for learning. 10% of participants responded that they used technology for learning only at home and just 1% only on campus. Despite a relatively high percentage of students working in public spaces, almost no students worked only in public spaces.

Older students (22 years old or over) were more likely to learn using technology at work while younger students (21 years old or below) were more likely to work in public spaces or student accommodation.

Actual and preferred location for teaching and learning over the academic year

Taught classes took place:

- 64% mainly on campus
- 26% a mix of on campus and online
- 10% mainly online

Students preferred to be taught:

- 53% mainly on campus
- 36% a mix of on campus and online
- 11% mainly online

Students preferred to learn:

- 45% mainly on campus
- 41% a mix of on campus and online
- 14% mainly online

Close to two-thirds of students (64%) mainly took classes on campus, with about a quarter (26%) receiving a mix of on campus and online teaching and 10% mainly online. In last year's survey, only 28% of students had teaching mainly on campus. This represents a significant shift back towards on campus teaching.

When looking at preferences for teaching, there was a slight shift towards preferring a mixture of on campus and online teaching (36%), although more than half still preferred mainly on campus teaching (53%). Looking at learning preferences, there was a further shift towards a mixture of on campus and online teaching (41%) with on campus learning the slightly more preferred option (45%).

Difficulties with digital technologies in learning

(could tick all that applied)

- **27%** no suitable device (13% on campus, 17% off campus)
- **19%** no safe area to work (8% on campus, 12% off campus)
- **36%** no private area to work (23% on campus, 16% off campus)
- **54%** poor wifi connection (33% on campus, 32% off campus)

- **34%** mobile data costs (14% on campus, 26% off campus)
- **34%** can't access systems they need (16% on campus, 25% off campus)
- 42% no issues (34% on campus, 30% off campus)

There were several issues that may have impacted students' ability to use digital technologies in their learning. 42% of students did not encounter problems in these areas.

In previous years we did not distinguish between on and off campus issues. A change in wording in 2022/23 may have encouraged students to think more about the issues that impact them in different contexts.

Over half of students (54%) struggled with wifi connections, almost equally on (33%) and off (32%) campus. About a third of students (34%) struggled with mobile data costs, and this was particularly notable off campus (26%).

A significant percentage of students (36%) had no private area to work, around a fifth (19%) had no safe area to work, and over a quarter (27%) had no suitable computer or device.

Range of learning activities

(could select all that applied)

The percentages of students who had carried out a range of online learning activities in the last academic year were:

- 85% accessed course materials online
- 82% watched recorded lecture/class
- **70%** participated in live online lecture/class
- **58%** mixed face-to-face/online class
- 56% online quizzes

- 55% computer-marked test/assessment
- 44% online research tasks
- 32% live polling
- 31% collaborated online
- 24% online text-based discussion
- 13% virtual lab/practical/fieldwork
- 8% online game/simulation
- 3% VR/AR/XR
- 3% none of these

Most students engaged with the more routine/transactional activities like accessing lectures online, digital assessments and quizzes. Percentages for more interactive elements were lower. However, more students were collaborating online than last year (31% in 2022/23, 17% in 2021/22) and more were engaging in text-based discussions (24% in 2022/23, 13% in 2021/22).

Those who rated the quality of the learning environment as above average were much more likely to have participated in these activities as part of their learning.

Opinions on learning materials

The percentages of students who agreed with statements about various aspects relating to the online learning materials they experienced were:

- **49%** were engaging and motivating (40% neutral, 11% disagreed)
- **58%** were at the right level and pace (34% neutral, 8% disagreed)
- **78%** were accessible to them (19% neutral, 3% disagreed)
- **62%** were available in good time (29% neutral, 8% disagreed)

More than half (58%) considered resources to be pitched at the right level and pace, a point which has seen a marked increase since the 2019/20 survey when less than half (45%) agreed. Just under half (49%) agreed that the resources were engaging and motivating but this is an area which has also seen a significant improvement in the last three years (35% agreed in 2019/20).

Convenience, fairness, impact and effectiveness of online learning

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

- **83%** was convenient for them (14% neutral, 3% disagreed)
- 67% allowed students to contribute in ways that they preferred (27% neutral, 7% disagreed)
- 71% enabled students to make good progress in their studies (24% neutral, 4% disagreed)
- **44%** made them feel part of a community of staff and students (37% neutral, 20% disagreed)
- **62%** allowed students to be assessed fairly (33% neutral, 6% disagreed)

In a range of areas, students mostly agreed that using digital technologies in learning was positive. Students were more ambivalent about whether or not digital technologies made them feel part of a community of staff and students. Students who had experienced learning mainly online during the last academic year were less likely to feel part of a community of staff and students than those who learned mainly on campus or a mixture of on campus or online.

Note: in previous years this question used the term 'learning online' rather than 'digital technologies'. This change in emphasis seems to have contributed to a positive shift across all areas. The question is intended to measure the impact of digital technologies in learning more broadly than in just 'online learning' which might have been interpreted only as learning online in off campus settings. Involvement in decisions about digital technology

 44% of students agreed that they had the chance to be involved in decisions about their digital experience (41% neutral, 15% disagreed).

Theme four: your digital skills

Theme four, 'your digital skills', looked at how supported students felt in developing their digital skills and their ability to use technologies to effectively learn online. We learned about the digital development opportunities and support offered by universities, whether these were felt to be adequate, as well as students' preferred sources of support.

Overall support for effective online learning

- 5% best imaginable
- 23% excellent
- 43% good
- 22% average
- **5%** poor
- 1% awful
- 0% worst imaginable

Students felt that universities generally offered them a good level of support (71% above average) to help them learn effectively online. This was despite generally low percentages of students stating support had been offered in a range of areas.

Responses to this question have markedly improved since 2020/21 when 60% of students rated the support offered to be above average.

Support for digital skills development

The percentage of students who agreed they had received support for digital skills development were:

- 54% guidance about the digital skills needed for their course (35% neutral, 11% disagreed)
- 36% assessment of their digital skills and training needs (40% neutral, 24% disagreed)
- 42% time to explore new digital tools and approaches (40% neutral, 17% disagreed)
- **28%** formal recognition, accreditation or certification for their digital skills (38% neutral, 34% disagreed)
- **39%** development opportunities to build digital skills for future employment (40% neutral, 21% disagreed)

Universities have improved in providing assessments of students' digital skills and training needs: in 2020/21 only 26% agreed with the question compared to 36% in this year's survey.

Sources of help for digital skills and learning

(could tick all that applied)

- 61% other students
- 54% online videos and resources
- 50% lecturers/tutors
- 35% friends and family
- 30% IT staff
- 29% library/learning resources staff
- 14% other student service
- **13%** teaching and learning/e-learning staff
- 8% don't look for help

On average, students selected only one source of support when responding to this question. Students tended to prefer going to other students on their course for help with online and digital skills (61%), while a half (50%) of students went to lecturers/tutors for help. Online videos and resources were also an important source of support, with over a half (54%) of students using this content. Library and learning resource staff were sought out by 29% of students, which is a significant increase from 2021/22 (13%).

Skills training and support

(could tick all that applied)

- **58%** avoiding plagiarism
- 46% learning online
- 36% basic IT skills
- 26% specialist software for your subject
- 21% data analysis
- 21% participating in digital assessments
- 20% behaving safely and respectfully online
- 18% keeping data secure
- **16%** handling digital information, data and media
- 14% coding/scripting
- **10%** creating accessible digital content
- 10% online publishing
- 8% managing social media or public webpages
- 12% none of these

In all but one (avoiding plagiarism) of a wide range of digital skills areas, most students responded that training or support had not been offered.

Just over a third (36%) of students were offered basic IT skills support, and less than half were offered support for learning online (46%). Percentages were particularly low for coding and scripting (14%), creating accessible content (10%), managing social media accounts (8%) and keeping data secure (18%).

Student voices: positive and negative aspects of learning using digital technologies

Students were asked to say what they thought were the most positive and negative aspects of learning using digital technology, and what one thing their organisation could do to help them use digital technologies effectively. Several key themes emerged. The responses reveal the diversity of learning preferences - what works well for some does not work well for others.

Positive aspects of learning using digital technology

10,196 students responded to this question. Students identified a number of key positive aspects of learning using digital technology.

Online lectures – the ability to watch prerecorded or live lectures was noted as one of the most positive aspects of learning using digital technology. This allowed better flexibility of learning, and features like pausing and rewinding lectures were particularly valued. A range of activities around online lectures could also occur when recorded lectures were offered, such as researching particular topics further, and revisiting and revising lecture materials multiple times.

Access to resources – students noted the ease by which resources could be accessed via online learning platforms and library platforms. The existence of one central location to find resources was important. This included lecture notes and recordings, as well as tools, software and library resources such as books and journals.

Flexible workplace – digital technologies can enable learning to take place in a range of contexts, on and off campus. This more flexible workplace meant personal circumstances – such as the ability to travel, work commitments, and childcare commitments – interfered less with the ability to learn. Additionally, disabilities were less of a barrier to learning when students used the range of platforms and tools available to them at home or on campus. "As someone who suffers from social anxiety, I find it a lot easier to study online. I have also recently become a first-time mum so balancing my Master's while I'm off on maternity allows me to study at my own pace" Student quote

Pace of learning – related to the flexibility offered by digital technologies, one particular theme that emerged from the survey responses was that students were able to learn and work at their own pace when using digital technologies. They were able to access resources when they needed and wanted them. This included being able to catchup on content that may have been missed as well as using it for revision purposes.

Convenience and savings - students recognised that digital technologies could help them to save time and money by working off campus. Digital technologies could prevent inefficient commutes to campus, with time better spent working at home or in student accommodation. *"I can go to work during a lecture and watch it when I get home so I don't feel like I'm missing out on money or learning - one isn't sacrificed for the other"*

Student quote

Communication and interacting online -

digital technology enabled students to better communicate and interact with both their peers and lecturers. For some this created a more motivating and engaging environment for learning and contributed to creating a sense of community with their peers.

"You are able to contribute to class discussion or ask questions if you are not comfortable speaking up in class" Student quote Wellbeing – students noted that digital technology aided their wellbeing. They could work in more comfortable environments and in ways that suited their personal preferences. This helped them feel less stressed and distracted and more relaxed and focused. In addition, some students felt less anxious when interacting with others via digital technology. Additionally, if they had disabilities they were better equipped to interact and learn on a more equitable basis.

"It creates a fairer environment for those who have chronic conditions and illnesses" **Student guote**

Negative aspects of learning using digital technology

Students also identified some of the negative aspects of using digital technology for learning. 8,590 responses were received for this question.

Recorded lectures - students experienced a range of issues with recorded lectures. The timeliness by which recordings were uploaded impacted their ability to learn at times that suited them. The audio and visual quality of recordings could be lacking. The ability to fully understand the content of lectures was particularly affected where audio recordings were poor. This also contributed to inaccurate captions and transcripts. The supplementary elements of lectures, such as discussions in the classroom or lecture theatre and text written on a blackboard were not always captured in lecture recordings and in some cases prevented full engagement with lecture content. Students may have also missed out on a complete learning experience where

seminars and tutorials were not also made available online in some format.

"The recordings can be very poor in quality and are difficult to hear" Student quote

Engagement and interaction – digital technologies reduced the social and interactive elements of learning for some. This included the ability to discuss concepts with lecturers and students, as well as to ask questions to clarify content. Students may have developed ideas better through discussion in-person rather than through different formats of asynchronous and synchronous online chat. Online chat seemed more stunted and less effective than in-person interaction.

"I learn through discussion and bouncing ideas off other people" **Student quote**

Community and collaboration – students felt less able to become part of a community at university when learning was primarily conducted online. Digital technologies removed the 'human' element required to connect with others, to share experiences and support each other.

"It is important to me that I get to meet and network with my fellow students. We all have so much to teach each other, experience to share, and support to give each other" **Student quote**

Wifi and technical issues - students

highlighted wifi as a particular problem that hindered their ability to learn, research or complete tasks. This included issues faced both on campus and off campus with wifi and mobile data connections. Poor internet connections meant that university systems were harder or impossible to access remotely. In addition, computers with inadequate performance meant students had to rely on their own devices, which did not always have appropriate software installed for their courses.

Motivation and wellbeing – students found reliance on online resources could lead to a lack of motivation and focus, and they were more easily distracted by other tasks. Students may not have attended lectures in person if they were available online. For some, using screens and devices for extensive periods of time led to health concerns such as eye strain, fatigue and postural problems. Feelings of loneliness and disconnection with others also developed for some.

"We use laptops for eight hours straight in class and that gives so many of us eye strains, headaches and other health issues" Student quote

Problems with online learning platforms

- online learning platforms could be difficult to navigate, making finding course materials and reading lists frustrating. Some students found the amount of information presented to them on learning platforms overwhelming, and they did not always get presented with relevant notifications and announcements. The availability of content across different courses and modules was inconsistent. Additionally, accessing resources such as ebooks and journals was problematic where authentication processes were not clear. Students often encountered issues with the unavailability of electronic versions, either through lack of subscription or because resources were being used by other students.

"Can be complicated to navigate as different modules and departments put resources in different locations sometimes" Student quote

Feedback and assessment – online exams and assessment platforms were difficult to use for some students and additional guidance on how to complete assignments online and how best to use systems may have been useful. Students did not always receive personalised, adequate or timely feedback through online test systems. Additionally, they did not always have the ability to discuss marks with lecturers or tutors in order to improve future work. Many worried about network and connectivity problems adversely affecting exams and the ability to submit formative or summative assignments. Additionally, some students felt online exam delivery led to unfair results, as they could not perform as well as they would have in other contexts of assessment and due to a perception that others may have been cheating.

"I dislike having to hand in assessments online through fear of any glitches in the system or any files not processing" Student quote

One thing to help students use digital technologies effectively

Students were asked what one thing their organisation could do to help them use digital technologies more effectively. 7,376 students responded to this question. Students would like universities to:

Provide more opportunities to develop digital skills:

- Have more provision for those developing their digital skills, including training in basic productivity tools, as well as more advanced or specialist sessions and ensure these are widely advertised to all students
- Provide additional support to first year students to ensure they are able to use essential systems and applications, and offer refresher sessions throughout the year
- Consider developing support for transferable and in-demand workplace skills, such as coding, marketing and graphic design
- Signpost all available software and where to get support for using different programmes. If software is required as part of a course, ensure training and refresher sessions are available
- Offer accreditation for skills developed as part of or in addition to a course of study
- Proactively check-in with students to identify additional support needs

"At the start of the academic year show us how to engage with the software used on our courses. and make it so that we can rewatch these anytime" Student quote

Improve IT support

- Make sure it is easy to access IT support and signpost where students can go for help when they encounter problems with digital technology
- Where possible, improve the responsiveness of IT support and allow support to be accessible remotely as well as on campus

Improve the accessibility and availability of resources

 Ensure learning platforms are consistently well organised across different courses and modules. Resources can be difficult to find. It may be worth researching user journeys across learning platforms and virtual learning environments

- Make it clear how support can be accessed when students cannot find or access the resources they need. Offer a variety of options for when students need help, including video tutorials, step-bystep guides, refresher sessions and the option to talk to a member of staff
- Offer clear support for accessing library resources and how to get help with information literacy
- Signpost opportunities for digital skills training courses, including internal and external offerings, using announcements or notifications sections of online learning platforms
- Provide orientation for first year students who may not be familiar with online learning platforms and stores of content, and ensure these sessions are well advertised
- Develop guides and support for navigating learning platforms

"Sometimes I find there is an overwhelming amount of information or information is too hard to find and is hidden behind too many links or pathways" Student quote

Offer more software support

 Students require access to a wide suite of software and applications. This includes general productivity tools (eg multimedia editing, note taking, referencing), assistive software (eg spelling and grammar checkers) as well as specialist software (eg statistical analysis, data analysis, GIS) required for courses. It may be helpful to develop and advertise a hub where students can browse a list of available software Provide support and guidance for the use of all kinds of software. This may take the form of face-to-face or online courses delivered by the university, or linking to appropriate external courses. Where software is required as part of a course, students express a need for tutorials as well as refresher sessions

Improve wifi and hardware provision

- Improve wifi infrastructure across university campuses and student accommodation. Students struggle with the availability and strength of connection on laptop and mobile devices. It would be useful to assess whether mobile signal can be boosted within university buildings
- Improve provision of hardware for learning. Students face issues with unreliable computers on campus and some are unable to find an available or working computer. In addition, some students do not have suitable devices. Help students to purchase or loan equipment and software so that they can participate more equitably in digital learning

Online lectures/face-to-face lectures

- Continue to address students' varied preferences for different modes of learning. Some express a strong preference for online lecture material and tutorials, including live and pre-recorded, while others strongly prefer face-to-face lectures
- Continue to offer the option of face-toface tutorials and seminars where lectures are mainly delivered online
- Support lecturers to improve the quality of their lecture recordings, and support them to upload lectures in a timely fashion. Audio quality of lectures should

be addressed in particular to improve the accuracy of captions and transcripts

Interaction and community

- Provide a variety of avenues for students to ask for help and to interact with tutors, lecturers and support staff. Ensure staff are responsive to students. Communicate widely about the availability of different support channels, and the various training sessions and online resources available to students
- Proactively engage with students to ask for their thoughts on their training and support needs
- Encourage students to socialise and build community online, as well as more collaborative learning and course-based discussion.

"Create some kind of official integrated group chat for students, where it is a safe, monitored space and we can ask other students questions or note thoughts" Student quote

Get involved

See the digital experience through the eyes of your students and staff. Our 2023/24 digital experience insights survey for students will open in October 2023.

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 or professional services staff, please contact us at **help@jisc.ac.uk** putting 'digital insights' in the email subject line.

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 relationship manager.

Acknowledgements

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