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EUNIS 2022: Digital learning and teaching throughout the pandemic: learning from the digital experiences of students and staff during 2020 and 2021

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Abstract

Drawing on the digital experiences of almost 76,000 learners/students, teaching staff and professional services staff from UK further and higher education, this session will explore the successes and challenges of learning, teaching and working online throughout the coronavirus pandemic. COVID-19 and the enforced move to remote engagement meant that all needed to embrace digital practices. It galvanised colleges and universities to push forward with digital transformation projects that may otherwise have taken far longer.

Understanding how students and staff use technology is essential. Jisc has been running the digital experience insights surveys to gather staff and students' expectations and experiences of technology since 2016, providing valid, representative and actionable data to inform digital transformation.

Alongside Jisc's work on learning and teaching reimagined and shaping the digital future, the survey findings highlight current digital practices and provide data to inform strategic planning. Knowing what works, what the barriers are and listening to the voices of these key stakeholders as they describe their experiences will help us to further advance digital practice and develop effective models of hybrid and blended models.

Key themes explored in this session include:
* Infrastructure and access to technology
* Support to learn, teach and assess/be assessed online
* Actively engaging all stakeholders as partners in online digital education
* Wellbeing when learning, teaching or working online

Delegates will takeaway from the sessions:

1. An overview of the findings from the learner/student, teaching staff and professional services surveys (with digital copies of each of the reports)
2. Opportunities to reflect on how these findings align or differ from their own experiences, engage in discussions and share practice on approaches to digital transformation

1 Background

The challenges in bringing about digital transformation for the UK further and higher education sectors (FE and HE) have been thrown into the spotlight by the coronavirus pandemic. The need to deliver learning online has reinvigorated the drive to make effective use of digital. Many colleges and universities have embraced these challenges during difficult, and sometimes fast changing, circumstances. In these unprecedented times, the pandemic unearthed some major barriers that inhibit active participation online for all stakeholders as well as some indicators of what effective practice looks like. The Jisc digital experience insights surveys are helping us to get a national picture of what the successes and challenges are in using technology effectively as part of the way learning is delivered and the business of education is carried out.

1.1 The surveys

The Jisc digital experience insights surveys have run annually since 2016 and have built up a strong longitudinal evidence bank. Initially the surveys focused entirely on FE and HE learners/students but now include surveys for FE and HE teaching staff, FE and HE professional services staff and HE researchers (data for researchers is still being analysed and so not included in this paper). The surveys open each year in October and have staggered close dates (learner/student surveys close end of following April, professional services staff close end of June, teaching staff and researchers close early July).

The surveys are designed to help colleges and universities make better informed decisions about the digital environment they offer and to target resources where they are most needed. They are invaluable in informing and driving change, providing data that contributes to digital strategy development and quality enhancement.

The anonymised data collected by service users enables Jisc to extrapolate a national picture and to monitor this over time, showing progress and highlighting issues of national concern. This evidence-based research enables us to respond promptly to sector needs. Note, that differences between the sectors requires us to analyse FE and HE data separately.

1.2 Survey themes

Our question sets have been carefully researched in consultation with students and staff. Each survey is tailored to a specific target audience and explores four key aspects of their digital experience:

- You and your technology
- Technology in your organisation
- Technology in your learning/teaching/role

- Developing your digital skills

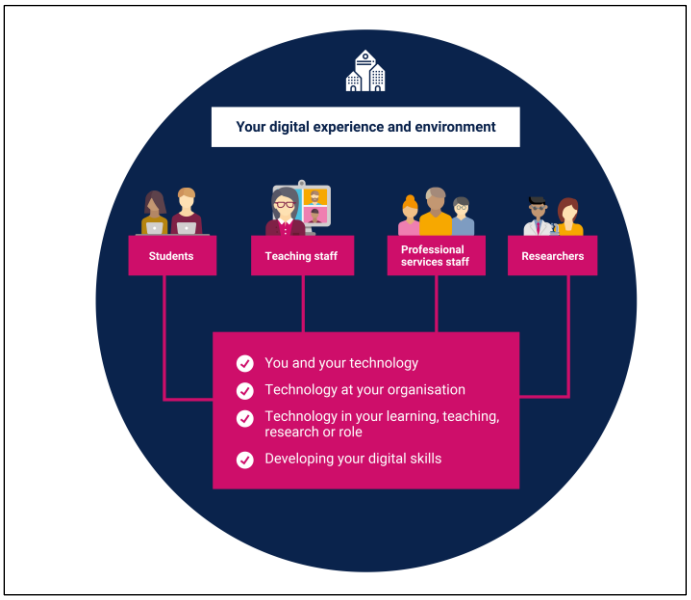

Figure 1. Model showing themes of digital experience insights surveys

1.3 Survey participation in 2020/21

During the 2020/21 academic cycle the surveys achieved a record number of responses. Participation statistics were:

Survey	Number of participating organisations	Number of respondents
FE learner survey	39 colleges/sixth form colleges	23,741
HE student survey	41 universities	38,917
FE teaching staff survey	29 colleges/sixth form colleges	2,822
HE teaching staff survey	25 universities/colleges delivering higher education	3,729
FE professional services staff survey	25 colleges/sixth form colleges	2,570
HE professional services staff survey	14 universities	4,056

Table 1. Participation statistics for 2020/21 digital experience insights surveys (Jisc, 2021)

2 Common issues across all surveys

Although the audiences have their own needs, there were some common issues that affected all respondents to some extent. Each question set included 4 free text questions focusing on what had been positive about participating online, what had been negative, what could be done to improve their learning/teaching/ or work situation and what one thing would make a difference to their overall digital experience. The responses to this data provided a rich source of data that complemented and enhanced the quantitative data.

2.1 Tackling barriers to participation in online learning/teaching and working

With the majority of learning, teaching and work taking place online, too many students, teaching and professional staff encountered problems that prevented them from participating effectively online:

Problem	FE learner survey*	HE student survey	FE teaching staff survey	HE teaching staff survey	FE professional services staff survey	HE professional services staff survey
Poor wifi connection	49%	63%	52%	51%	3%	34%
Access to online platforms/services	21%	30%	29%	25%	23%	18%
Mobile data costs	16%	24%	14%	12%	9%	7%
Need specialist software	12%	22%	21%	20%	10%	11%
No safe, private area to work	12%	21%	21%	16%	12%	9%
No suitable computer/device	14%	15%	22%	16%	11%	9%

Table 2. The percentages of respondents who said they experienced problems in learning, teaching or working online in response to the question "When you have been learning/teaching/working online, have any of the following been a problem?"

* Some FE learners were still able to participate on campus during 2020/21, whereas most HE students were not (25% of FE learners said they had been learning on campus in the two weeks prior to taking the survey (35% a mix of physically onsite and online and 40% online) as opposed to 1% of HE students (12% a mix of onsite and online and 87% online).

Prerequisites for online learning, teaching and working include:

- Good, reliable and affordable wifi

- Suitable devices to work from, equipped with both general and specialist software appropriate to subject or role
- Easy and reliable access to platforms that enable them to communicate and work effectively
- Access to resources and materials to support learning/teaching and work
- Opportunities to learn and work collaboratively
- A safe and private place to learn, teach or work
- Robust technical support delivered at time of need (both technical and role related)

2.2 Design specifically for online learning

Students told us about the lengths that 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 learners and students to manage their study around other commitments.

However, not all online learning made use of the more transformational elements 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 (particularly when designed to take place in small groups) naturally increased student engagement and made the learning experience more enjoyable. They also provided 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 they experience in accessing the learning and resources. 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. Shorter chunks of learning and regular breaks are also important – they alleviate physical discomfort in working online and help to maintain concentration.

2.3 Make support for online learning and digital development visible

Colleges and universities provide a lot of support for students and staff, but our not all respondents felt they had access to this, suggesting that some of this support is less visible or less easy to find online. A point of significance is how few respondents said they had been offered an assessment of their digital skills or were informed about how technology would be used in their learning or role.

		How much do you agree that we have given you:	
Question		**Guidance about the digital skills needed for your course/role?**	**An assessment of your digital skills and training needs?**
FE learner survey	**Agree**	51%	39%

	Neutral	41%	45%
	Disagree	9%	16%
HE student survey	**Agree**	41%	26%
	Neutral	40%	40%
	Disagree	19%	35%
FE teaching staff survey	**Agree**	5%	30%
	Neutral	37%	43%
	Disagree	13%	27%
HE teaching staff survey	**Agree**	44%	15%
	Neutral	35%	38%
	Disagree	21%	47%
FE professional services staff survey	**Agree**	50%	27%
	Neutral	38%	46%
	Disagree	11%	27%
HE professional services staff survey	**Agree**	41%	16%
	Neutral	43%	45%
	Disagree	16%	39%

Table 3. The percentages of respondents who agreed, gave neutral responses or disagreed to questions asking how much they agreed with various statements about the support and guidance they received in relation to digital skills and their learning/roles.

2.4 Recognising and working with stakeholders as key partners

Learners and students thrive best when they are active participants in their learning. Gravity Assist: propelling higher education towards a brighter future (Office for Students (OfS), 2021) recommends involving students in designing teaching and learning. Similarly, teachers and professional services staff are also major stakeholders who have much to contribute to improving the success and efficiency of learning, teaching and working online, with many pragmatic solutions to offer. Everyone will benefit if all stakeholders are involved as equal partners. While more respondents said they had opportunities to be involved in decisions about online learning/teaching/working, than in previous years, substantial

numbers actively disagreed. Not all agreed that their concerns were being heard. The results show clear potential for improvement:

FE responses to the question "How much do you agree that you are given the chance to be involved in decisions about online learning/teaching/working?"

- 49% of FE learners agreed (37% neutral, 14% disagreed)
- 38% FE teaching staff agreed (40% neutral, 23% disagreed)
- 36% FE professional services staff agreed (44% neutral, 20% disagreed)

FE responses to the question "How much do you agree that the concerns of learners or staff and their representatives were being heard?"

- 49% of FE learners agreed (37% neutral, 14% disagreed)
- 29% FE teaching staff agreed (44% neutral, 28% disagreed)
- 46% FE professional services staff agreed (42% neutral, 12% disagreed)

HE responses to the question "How much do you agree that you are given the chance to be involved in decisions about online learning/teaching/working?"

- 35% HE students agreed (36% neutral, 29% disagreed)
- 25% HE teaching staff agreed (36% neutral, 39% disagreed)
- 32% HE professional services staff agreed (46% neutral, 22% disagreed)

HE responses to the question "How much do you agree that the concerns of learners or staff and their representatives were being heard?"

- 44% HE students agreed (44% neutral, 12% disagreed)
- 16% HE teaching staff agreed (38% neutral, 46% disagreed)
- 41% HE professional services staff agreed (44% neutral, 15% disagreed)

3 Differences in responses across the surveys

Analysis of the qualitative data revealed a more nuanced situation. It also posed challenges because individuals have very personal preferences – what one person likes or finds helpful, another may dislike.

3.1 Mental wellbeing

Many respondents commented on both physical and mental aspects of learning/working online, citing both positive aspects such as the flexibility this offered, the fact that it helped them manage care commitments and employment more effectively and improved quality of life by reducing time and costs involved in commuting. Others felt lonely, isolated and missed the much valued collaboration and learning from tutors, peers or colleagues. Many learners and students struggled with the isolation and loneliness. Some felt that they were being denied the experience they had signed up for. When commenting on the lack of interaction from peers, it was not just the social aspects they missed, it was the very experience of learning with others and the added value this brings. Both professional services

staff and teachers missed the in-person aspects of their roles and the support from colleagues. A key difference was that when asked about the negative aspects of online teaching, many teaching staff expressed their concerns for their learners/students before they commented on their own experiences. This increased the anxiety lode for them and impacted on their mental wellbeing.

3.2 Productivity and engagement

It wasn't just the social aspects of learning that students missed was interesting that students commented that online resources like lecture recordings meant that they could go at their own pace, pause when they didn't understand things and undertake more research. Teaching staff valued new and more interactive techniques and approaches that they found effective. However there were comments both for and against how interactive and engaging students and teachers felt it was possible to be online, particularly for practical subjects.

Some said that working remotely allowed them to concentrate on their learning/work and that they experienced fewer distractions, although some cited lack of concentration or motivation as a negative factor. Many professional services staff said that they had not previously had an opportunity to work from home, that their productivity and work-life balance improved and that this was something they would like to see continue. It was interesting to note that environmental concerns, both in minimalising travel and in having a better environment at home were also considerations.

3.3 Expectations and changing roles

Learners/students and teaching staff were uncomfortable with the expectations placed upon them throughout the pandemic and in some cases, high numbers actively disagreed. Professional services staff were broadly comfortable with the working expectations placed upon them:

FE responses to the question of "How much do you agree that the learning/teaching/working expectations placed upon you have been reasonable?"

- 51% of FE learners agreed (37% neutral, 7% disagreed)
- 37% FE teaching staff agreed (33% neutral, 30% disagreed)
- 63% FE professional services staff agreed (24% neutral, 13% disagreed)

HE responses to the question of "How much do you agree that the learning/teaching/working expectations placed upon you have been reasonable?"

- 42% of HE students agreed (31% neutral, 27% disagreed)
- 26% HE teaching staff agreed (28% neutral, 46% disagreed)
- 61% HE professional services staff agreed (23% neutral, 16% disagreed)

Teaching staff were asked some additional questions relating to whether their teaching online had created technical challenges, added significant new stress to their workload or changed their role as a teacher. Their responses to all three of these questions were high, perhaps partly because for many, they were not just dealing with their own problems, but trying to support the challenges their students faced at the same time – taking on two roles that are not easy to perform simultaneously.

FE responses from teaching staff to the question "How much do you agree that your online teaching has:"

- 83% agreed that it had created technical challenges (14% neutral, 4% disagreed)
- 65% agreed that it had added significant new stress to their workload (25% neutral, 10% disagreed)
- 74% agreed that it had changed their role as a teacher (20% neutral, 6% disagreed)

HE responses from teaching staff to the question "How much do you agree that your online teaching has:"

- 82% agreed that it had created technical challenges (13% neutral, 5% disagreed)
- 73% agreed that it had added significant new stress to their workload (17% neutral, 10% disagreed)
- 76% agreed that it had changed their role as a teacher (16% neutral, 8% disagreed)

Colleges and universities naturally were concerned about the wellbeing of their learners/students but these figures indicate similar concerns exist for teaching staff, particularly those who were less confident in teaching online and trying to fulfil the dual role of delivering high quality learning while trouble-shooting issues for those experiencing difficulties in live situations.

4 Conclusion

These are just some of the findings from a data set that specifically related to online learning during the coronavirus pandemic. As we move forward, this data can help us to explore how best technology can support learning, teaching and assessment. We have a great opportunity, with greater numbers of people having experienced learning and working online than has previously been the case, what matters is how we listen to the views of our learners, students, teachers and professional services staff to inform the future. If we can capitalise on the lessons learned from this research and our experiences over the last two years, the benefits stand to be immeasurable.

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6 Author biographies

Clare is a senior consultant in Business Intelligence within Jisc's Data and Analytics directorate. She has worked closely with both FE and HE providers on building digital capabilities and digital experience insights for students, teaching staff, professional services staff and researchers for several years. Clare holds a Masters in Education from The Open University and a BA (Hons) in Post compulsory education from Oxford Brookes University.

Kathryn Heywood is Head of Business Intelligence within Jisc's Data and Analytics directorate, with responsibility for delivering all products and services – including Digital experience insights and the Online surveys platform - across the business intelligence portfolio. Her experience encompasses strategic planning in higher education, and leading the Government's higher education statistics function. Kat has worked extensively with administrative and survey data across the HE, FE and research sectors, and has driven data collection requirements with the associated HE and FE data collection agencies as a key member of several data review, steering and technical groups. Kat holds a first class Degree and PhD in Physics from Durham University.