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Towards a New Era of Flexibility: Student and Staff Reflections on Online Learning

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Abstract

Higher Education is in the midst of a digital revolution, with institutions bidding to harness the potential of technology. Periods of online learning experienced during recent times have accelerated the move towards widespread adoption, affording institutions the opportunity to evaluate and reflect on digitally mediated approaches. This report focuses on student (n = 584) and staff (n = 54) experiences of online teaching and learning in a large UKHEI Psychology department. Findings from mixed methods surveys suggest that while staff and students were largely satisfied with the online teaching and learning experience, differences were evident in undergraduate and postgraduate perceptions. Further, a thematic analysis identified emergent themes from staff (*teaching and working online, student engagement with online learning and looking to the future*) and student (*experiences of emergency provision, accessing support, and teaching methods*) qualitative responses. This paper reflects on how the perceptions and experience of online learning will influence the future success of flexible online learning in a post-pandemic era of Higher Education.

Introduction

Higher Education (HE) is in the midst of a digital revolution, with institutions bidding to harness the potential of technology in education and embed digital employability skills in the curricula (Department for Education 2019; Kornelakis and Petrakaki 2020). This has manifested in increased investment in the development of online and blended provision (UCISA 2020). Research into HE practices has highlighted potential benefits of digitally mediated approaches, in particular relating to accessibility and flexibility of learning (Fisher et al. 2021). However, evidence pertaining to the efficacy of such approaches and the ability of staff to effectively engage with digital pedagogies is mixed (Harrison et al. 2017). Furthermore, the development of online delivery modes has faced some resistance from academics concerned with the political economy of selling, automating and globalising education in the digital age (Mirrlees and Alvi 2019).

This paper considers the perceptions and experiences of online teaching and learning of staff and students at a UK university. Online learning, the delivery of digitally mediated learning facilitated by internet connectivity (Conrad et al. 2021), differs from in-person learning in that it lacks physical context and connection. Online learning courses have previously drawn criticism for not affording opportunities for facilitators (e.g., university lecturers)

to perceive non-verbal cues of student understanding and provide immediate support and feedback (Kauffman 2015). However, technological advances in delivery (e.g., the use of real-time online conferencing platforms) now afford educators a plethora of interactive and engaging online learning opportunities. Online learning tends to adopt two primary methods of delivery; live ‘synchronous’ sessions, which normally offer opportunities to interact with tutors and peers and gain immediate feedback, or ‘asynchronous’ materials, which may involve watching pre-recorded videos, or completing quizzes or directed learning activities at students’ own pace (Hrastinski 2008). Previous research has suggested that synchronous and asynchronous modes of delivery are associated with similar academic performance (Roblyer et al. 2007; Nieuwoudt 2020), and that time spent online is the main predictor of performance (Nieuwoudt 2020). However, synchronous sessions have been shown to be more positively associated with perceptions of belonging (Peterson et al. 2018) and learner satisfaction (Fabrizz et al. 2021).

Online learning holds the potential to provide flexible learning opportunities for learners juggling the demands of education, work and family, who would not be readily supported by traditional in-person modes of delivery (Kauffman 2015). While there is no clear agreement on the definition of flexible learning (Li and Wong 2018), broadly speaking flexible learning should provide learners with greater autonomy over their learning (Wade et al. 1994). Flexible learning in a university course can be realised in terms of providing learners a choice of content (what), time (when), place (where) and learning style (how) (Chen 2003) and in an online context, should afford learners the opportunity to access their learning anytime and anywhere. The success of flexible online learning, relies on staff and student satisfaction. Research debating the efficacy of online learning has previously highlighted the importance of the course content and structure, delivery methods, and academic and institutional support on perceived satisfaction (Kauffman 2015). Furthermore, in a study considering the factors affecting student satisfaction in a flexible learning course, Drennan and Kennedy (2005) highlighted the importance of providing opportunities for students to exercise control over their learning. For staff, satisfaction with flexible online learning is contingent on positive perceptions and experiences of resourcing, staff development, communication and acknowledgement of effort (Kirkpatrick 2001). Negative perceptions of flexible online learning have been associated with decreased motivation to deliver (staff) and engage (students) with the online learning provisioned (Muilenburg and Berg 2005; Swan 2019).

The extended and enforced period of online learning experienced during the Covid-19 pandemic accelerated the move towards the widespread adoption of digitally mediated online learning in Higher Education. Referred to as emergency response teaching (ERT, Bozkurt and Sharma 2020), the social restrictions of the pandemic prompted a swift transition to remote modes of delivery and engagement. Effective online teaching and learning provision requires careful planning and pedagogical consideration and staff and students to possess sufficient digital literacy to competently and confidently engage (Doucet et al. 2020). While such pre-requisites were not conducive with the rapid and wide-ranging shift from face-to-face to online learning, valuable insights can be drawn from this novel period of educational provision.

Several studies have sought to reflect on the experiences of students during this period of ERT. Masalimova et al. (2022) identified 27 articles from around the world and reviewed perceptions and attitudes towards online learning, and the advantages and challenges students faced. They found that there was wide variation in how

satisfied students were with their experience of online learning. Some studies have acknowledged benefits in terms of students reporting positive effects on their learning and academic performance (Khalil et al. 2020), in part through being able to digest materials at their own pace (Martha et al. 2021). Favourable outcomes associated with the flexibility of online learning, for example reduced travel and costs associated with attending in-person sessions, have also been highlighted (Shim and Lee 2020). Other studies have reported challenges brought about through lack of face-to-face interaction, opportunities for socialisation and workload (Adnan and Anwar 2020; Banihashem et al. 2023_b). Additionally, online education was reported to be associated with mental health difficulties (Kaisar and Chowdhury 2020). This was supported by Bashir et al. (2021) in their survey study of Bioscience students, with findings suggesting that the period of online teaching and learning promoted negative feelings such as despair, anxiety, or depression, and problems in concentration. The degree to which negative effects are experienced by some online learners might be explained by their attitudes toward and experiences of online learning. Research has shown that students who hold positive, negative and neutral stances on online learning may differ in their motivation to engage and the stress levels they experience when engaging with their learning (Banihashem et al. 2023_a). Complementary findings have also been evidenced for teaching staff during this period (Stevens et al. 2023).

Generally the perspectives of teaching staff during the Covid-19 pandemic have received less attention in the literature, with papers tending to focus on the logistics of redesigning modules for online delivery (Bryson and Andres 2020) or reporting on the experiences from the initial period of ERT when staff were in the midst of making the sudden and unprecedented changes to their delivery (Zhao et al. 2021). Findings from a study by van der Spoel et al. (2020), who compared the online teaching expectations of Dutch educators with their perceptions of online learning after one month of online teaching during the pandemic, showed that staff experienced time pressure, increased workload and decreases in student interaction. While these factors had the potential to illicit negative effects, perceived increases in teaching efficiency and opportunities to personalise learning motivated a willingness to engage with technology mediated teaching and learning post-pandemic.

While there are challenges associated with online teaching and learning, the potential benefits to students and staff present an attractive prospect to HE institutions in a post-pandemic world beset with increasing student numbers and flexible study/work demands (Knight and Drysdale 2020). Large in-person class sizes, as a result of the ‘massification’ of HE (Nyagope 2023), have been shown to be detrimental to the quality of the student learning experience, with students more likely to take on a passive role in their learning and less likely to ask questions and interact with their peers and lecturers (Mulryan-Kyne 2010). Large cohorts also place additional pressures on staff and institutional resources, including issues relating to classroom space, timetabling, workload and the ability to bond with students, with institutions often defaulting to lecture methods of instruction to facilitate the student numbers (Cuseao 2007). The adoption of online learning approaches hold the potential to mitigate some of the challenges of large cohort in-person teaching, as long as close attention is paid to its design and implementation (Saunders and Gale 2012). Therefore, with online teaching and learning set to remain a key feature on HE courses and curricula post pandemic, it is important to gain more understanding of how online learning can be used to support staff and students from large-cohort institutions to engage more flexibly with their teaching and learning. Insights from the extended period of online learning therefore present a novel opportunity to explore this.

The Present Research

The present research seeks to provide an insightful analysis of the perspectives and experiences of online teaching and learning from staff and students in a large psychology department in a UK university. Drawing on quantitative and qualitative data from two surveys (staff and student), the study is framed around staff and student satisfaction with the online teaching and learning experience. Online teaching and learning satisfaction centres around the “*evaluation of opinions and feeling experiences...toward the quality of online learning*” (Yu, 2022, p. 2). Satisfaction in HE contexts can influence a range of factors including staff and student engagement, motivation, performance, success and retention (Bell and Brooks 2018; Sahin and Shelley 2008; Sidik et al. 2017).

In online learning contexts, the higher education satisfaction framework proposed by Martin and colleagues (2020, 2022) posits that satisfaction is contingent on the learner (e.g., characteristics and engagement), the instructor (e.g., characteristics and teaching style), the course (e.g., design, quality and technologies used) and the program organisation (e.g., support). While there is a plethora of research considering student and staff characteristics (e.g., Cole et al. 2014, Banihashem et al. 2023_a), to date few studies have considered aspects relating to course quality, programme organisation and support, leading to calls for more research into these important areas (Martin et al. 2020; Martin and Bolliger 2022). Therefore, this study considers staff and student perceptions of support received during their online teaching and learning experience, the success of the organisation and transition to online teaching and learning, and the quality of resources and provision. These factors while initially explored quantitatively, are also considered qualitatively providing an in-depth understanding of the broader benefits and challenges of online learning.

Studies have repeatedly identified the notion of support as being an integral indicator of instructor and learner satisfaction, indeed Cheawjindakarn et al. (2013) state that without sufficient support online teaching and learning is unlikely to achieve its goals. From a staff perspective, support from peers, an institutional culture that promotes and supports the adoption of digitally enhanced teaching and learning, and access to training opportunities to develop digital skills have been shown to foster motivation to adopt digital forms of education (Ertmer and Ottebriet-Leftwich 2010; Cacciamani et al. 2022). For students, support from peers and the wider academic community (i.e., staff and institutional support) has been shown to be important for promoting positive perceptions of their personal learning journey, particularly in those who might not feel confident in their ability to engage with online learning (Banihashem et al. 2023_a).

Course organisation and quality of provision also contribute to perceptions of satisfaction with online learning. Ill-prepared staff and poorly organised delivery of teaching and learning are detrimental to the quality of the online experience (Fang et al. 2023), as they are unlikely to afford opportunities for students to interact with staff and peers and thus engage in their learning in a manner that is supportive of their learning (Ward et al. 2010). Merely providing learning content is not enough to support positive student and staff teaching and learning experiences (Oh and Jonassen 2007). Issues relating to organisation and quality have previously been linked to reticence on the part of staff to adopt and fully engage with online teaching and learning approaches that they feel may be inadequate due to concerns relating to digital proficiency, increased workload, and student engagement (Beard

and Harper 2002).

During the pandemic, staff had to adapt to the demands of online teaching at pace, with little time to plan and prepare the delivery of online teaching and learning. Nevertheless the perceptions and experiences from this period can provide much needed perspective on the complexities of delivering supported, well organised, quality online learning and maintaining student and staff satisfaction, in large institutions where student and staff numbers are high. To this end, the present study first considers the following research question:

RQ1: How do staff and students perceive the experience of online learning?

Second the study considers whether the perceived experience of online delivery modes is consistent for undergraduate and postgraduate students. Positive attitudes towards and engagement with online learning require students to be willing to adopt an active and largely self-regulated approach to their studies (Liaw and Huang 2013). Some differences in undergraduate and postgraduate perceptions of online learning have been demonstrated. For undergraduate students, studies have suggested that while students may embrace the flexibility of online delivery modes, reporting that it can promote a greater depth of learning (Abdelaziz et al. 2011) and active independent engagement (McGarry et al. 2015), they show a preference for online opportunities that promote high levels of staff and peer interaction (Castle and McGuire 2010). This suggests that undergraduate students might benefit more from the sense of community and support that is fostered via synchronous online learning modes. Whilst opportunities to interact and gain a sense of belonging are also important to postgraduate students (Castle and McGuire 2010), their ability to demonstrate academic self-regulation and avoid procrastination (Artino and Stephens 2009) may be more conducive with online learning approaches (asynchronous and synchronous) more broadly. Ensuring that online learning is supportive of both undergraduate and postgraduate cohorts is imperative to maintaining levels of student satisfaction and learning engagement, therefore, the following research question is addressed:

RQ2: Are there differences in the perceptions and experiences of online learning for undergraduate and postgraduate students?

Finally, this study will use the collective findings of the study to identify key lessons and recommendations that can be drawn for future implementation and engagement with flexible learning in Higher Education contexts:

RQ3: What lessons can be learnt from the experiences of online ERT for future flexible online learning?

Materials and Methods

Two cross-sectional online surveys designed to capture the perspectives of staff and students were distributed at the end of the academic year (2020/21). The surveys contained a mixture of open-ended questions and rating scales. Respondents were invited to share their perceptions and experiences of online teaching and learning.

Overview of Participants

A total of 638 survey responses were received from university academic staff and students in a large psychology department in a UK university. For context, the department hosts approximately 3000 undergraduate and postgraduate students and employs over 140 members of academic staff. Courses range in size significantly, with some postgraduate (PG) courses having very few students (<10), while some of the undergraduate (UG) courses are very large (cohorts of >500 students).

The general teaching model used by larger courses encompasses a variety of teaching methods, including large group lectures, smaller 'laboratory' classes, workshops, weekly group tutorial sessions, and research project supervision. Prior to the pandemic the default teaching method was face-to-face delivery, with only two modules (out of over 120 modules) encompassing some online sessions. During the academic year 2020-21, some staff and students experienced blended (a mixture of on-campus and online sessions) and hybrid (simultaneous online and in-person delivery) delivery methods from September to November 2020, and all staff and students engaged with a fully online mode of delivery (a mixture of asynchronous and synchronous online sessions) from December 2020 until the end of the academic year. An overview of the sample groups is provided below.

University Staff

Fifty-four members of academic staff responded to the survey. This represented an approximate response rate of 41%. Responses represented the full spectrum of staff employment levels, from early career lecturers to Professor. Most staff identified as Lecturer/Senior Lecturers, $N = 41$; 76%. Thirty-five staff reported teaching undergraduate (UG) courses only, 5 taught on post-graduate (PG) courses only and 14 taught a mixed UG/PG timetable. Teaching experience across the sample ranged from 9 months to 30+ years, $M = 10.32$ years, $SD = 8.94$ years. All staff respondents had access to a home broadband connection while engaging with the period of online teaching.

University Students

The student sample consisted of 584 students, $M = 21.08$ years, $SD = 4.20$ years: 79.8% female. This represented a 21% response rate. The majority of students reported being enrolled on undergraduate courses, $N = 525$, with 59 responses from postgraduate students. Most students, $N = 562$, reported using a laptop/computer to access their online provision. A small number of students accessed their learning via tablet, $N = 16$, or smartphone, $N = 6$. For most students, regular access to the internet was via a broadband connection, $N = 560$, although some students reported using a mobile hotspot or other means of gaining connectivity, $N = 24$.

Measures and Procedure

Staff and students completed secure online surveys hosted on Qualtrics. Surveys took approximately 20 minutes to complete and included opportunities for both rating-style and open-ended responses. To promote participation with the survey (Wanous et al., 1997), quantitative perceptions relating to specific experiential elements of the

period of online teaching and learning were captured by study specific single-item rating measures. While we acknowledge that academic circles generally show a preference for multi-item measures, single-item scales are not substantially inferior and are deemed appropriate in cases where the measured constructs are clearly defined and narrow in scope (Allen et al., 2022; Bergkvist and Rossiter, 2007). The single item measures used within this study met the face-validity criteria set by Connell et al. (2018) in that they were relevant to participants, easy to respond to and interpret and were not distressing, sensitive or judgemental.

For staff, measures included a rating of the perceived success of the move to online provision (*“How successful do you think the move to online provision has been?”*), the support received by the department and wider institution (*“How supported have you felt over the past year?”*), and overall satisfaction with the experience of working and teaching at the institution during the period of remote teaching and learning (*“Please rate your overall satisfaction with your experience over the last year?”*). Staff perceptions also considered the quality of teaching provision (*“How pleased have you been with the quality of material delivered in an asynchronous/synchronous manner?”*) and student receptiveness (undergraduate and postgraduate) towards synchronous and asynchronous teaching and learning modes (*“How well do you think asynchronous/synchronous provision has been received by students?”*). Responses were rated on scales of 1-5, with high scores indicating positive perceptions.

For students, measures included a rating of the perceived success of the move to online provision (*“How successful do you think the move to online provision has been?”*), the support received by the department and wider institution (*“How supported have you felt over the past year?”*), and overall satisfaction with the experience of being a student at the institution during the period of online teaching and learning (*“Please rate your overall satisfaction with your experience over the last year?”*). Student perceptions also considered the extent to which students liked the asynchronous and synchronous modes of content delivery (e.g., *“How much have you liked the content delivered in an asynchronous / synchronous manner?”*) and whether they felt that the modes had supported their learning (e.g., *“How much has content delivered in an asynchronous / synchronous manner supported your learning?”*). Responses were rated on scales of 1-5, with high scores indicating positive perceptions.

In addition to the rating-style items, participants were also invited to provide free-text responses in a further nine open-ended response items. Open ended items offer participants the means of explaining their perceptions in more detail (Bengert, 2006). Specifically, these items invited both staff and student participants to comment on the perceived benefits of online teaching and learning, aspects that had worked well / less well, aspects of online teaching and learning that they would like to see continue post-pandemic, and their experiences of blended approaches (to capture the experiences in the period prior to full lockdown). Participants were also asked to consider the perceived benefits of in-person teaching and learning. Responses to all open-ended items were analysed qualitatively using thematic analysis.

Appropriate ethical procedures, in line with the British Psychological Society and institutional codes of ethics (Approval Reference No. 2016/194), were observed. All participants provided informed consent by accepting an online informed consent statement shown before the survey.

Data Analysis

Data analysis was split into two phases. Firstly, statistical analysis (using SPSS) of the quantitative survey responses was conducted to gain an overview of descriptive statistics and mean differences between the main study variables. Secondly, a thematic analysis of the open-ended survey responses, following the recommendations of Braun and Clarke (2006), was conducted. Responses from the staff and student surveys were analysed separately in NVivo. Two authors took responsibility for one dataset each and followed six core steps:

- (1) familiarisation with the dataset,
- (2) coding,
- (3) generating initial themes,
- (4) developing and reviewing themes,
- (5) refining, defining, and naming themes, and
- (6) producing the written report.

Analysis for each dataset was then reviewed by the other researcher to check for process, academic rigour, and ensure agreement.

Results

Findings of the study provide a valuable insight into the perceptions and experiences that staff and students have of online teaching and learning. An overview of the key findings from each survey is provided.

Staff Perceptions and Experiences of Online Teaching

Quantitative Staff Responses

Staff were largely positive about the way in which teaching and learning provision had transitioned online with forty-four (81.5%) staff rating it as successful or very successful. Most staff (93%, $N = 50$) reported receiving moderate to high levels of support from the department/institution during this period and 91% ($N = 49$) reported moderate to high levels of satisfaction with the overall experience of the period of remote teaching and learning. In terms of perceptions of the quality of synchronous and asynchronous teaching and learning materials, there were no significant differences at UG or PG levels, $p > .05$. In all cases, staff perceived the quality of materials to be moderate to high, $M_{range} = 3.57 - 4.02$. However, a significant difference, $t(46) = 4.01$, $p < .001$, was evident between staff perceptions of how well UG students had received synchronous, $M = 4.00$, $SD = .66$ and asynchronous, $M = 3.36$, $SD = 1.01$, modes of delivery, with staff perceiving synchronous delivery as having been received more favourably. Staff perceptions of how receptive PG students had been to the two modes of delivery were not significantly different ($p > .05$).

Qualitative Staff Perspectives

Three core themes emerged from the thematic analysis of the open-ended survey responses: *teaching and working online*, *student engagement with online learning* and *looking to the future*. An overview of the themes is provided

in Table 1.

Table 1. Themes and Sub-Themes for Staff Responses

Theme	Sub-theme
1. Teaching and working online	a. Online offers flexibility b. Modes of delivery
2. Student engagement with online learning	a. Student barriers b. Synchronous engagement c. Asynchronous engagement
3. Looking to the future	a. Return to face-to-face b. A blended approach

Teaching and working online. Benefits and challenges associated with teaching and working online were highlighted by staff. Staff commented on how they had enjoyed the flexibility offered by online teaching and learning in terms of their work-life balance. Staff also commented on how remote working had allowed them greater flexibility when it came to communicating and responding to student and staff communications. However, this was not a wholly positive experience for all, with some feeling that it promoted a ‘*constant expectation to be “on duty”*’ with ‘*students contacting us via email, via Teams and via private messages on Teams.*’

From a teaching perspective, some staff acknowledged that the move to online learning had allowed them to think creatively about how to engage students, allowing them to design online sessions that ‘*were more interactive than usual FTF (face-to-face) lectures.*’ The workload demands that were placed on staff though were considerable, with staff indicating that they had ‘*too much to do in too little time*’. The development of asynchronous content was a particular issue, with staff highlighting how the process of designing and adapting content, recording, and uploading the materials to the university VLE (virtual learning environment), took considerably longer than preparing and delivering a face-to-face session:

The struggle was in the pre-recorded content. This was fine to an extent, because I'm competent using technology and video editing techniques but the length of time it took was astronomical. 40 minutes of content could take around 2 days to produce. That's tough.

For online delivery, there was an acceptance that online modes worked well for some modules and sessions, but not all. Some more practical modules where blended approaches had been introduced pre-pandemic, were praised for their largely successful transition to a fully online model, combining asynchronous content with synchronous workshops and labs. Furthermore, for some modules that would previously have adopted a traditional front-led lecture approach, particularly where large cohorts were involved, the opportunity to use online asynchronous modes of delivery was viewed positively:

Moving large cohort lectures to asynchronous was great - I could add in much more interactivity and multimedia than if I was teaching f2f. Teaching these large groups async also meant that we didn't have

to teach the same lecture 2/3 times over which was really soul destroying.

However, not all online teaching modes were viewed through a positive lens. Hybrid approaches to delivering on-campus sessions (prior to stricter social distancing measures) were particularly unpopular, with staff highlighting how teaching to students in the classroom and remotely at the same time was difficult to manage and had a negative impact on student interaction and engagement:

I found the blended [hybrid] approach very difficult. I would far prefer entirely online or entirely in person rather than blended [hybrid]. You need to repeat questions from the students in person to those online, for example. Group work is very difficult if some are there in person and some online. Relatively trivial things like asking students to discuss with their neighbour are not possible.

Student engagement with online learning. Staff experiences of student engagement on their modules were mixed. For synchronous sessions, some staff reported positive experiences in terms of perceived increases in attendance and punctuality. Furthermore, for some staff the affordances of the MS Teams technology used during synchronous sessions helped to promote engagement. For instance, the use of the Teams chat window encouraged students to ask questions (*'students were very open to telling me in the chat function when they didn't understand things'*) and breakout rooms facilitated collaboration and teamwork (*'Structured breakout rooms for small group discussion worked very well for level 6 students to engage with papers and a critical discussion of the module'*).

However, not all staff reported positive experiences of student engagement in synchronous sessions. Staff commented on a perceived lack of engagement, especially with UG cohorts, with staff often feeling as though they were passively *'presenting to grey boxes on a screen'*, rather than actively engaging with and teaching students. Staff lamented the lack of face-to-face contact, indicating that it was difficult to easily gauge student understanding and enjoyment during an online session. Moreover, some staff commented on how students would sometimes log on to a session but *'were not engaging - didn't respond to their name or in chat and often were still there after the session had ended'*.

A common issue in synchronous sessions was the infrequent use of cameras and microphones by students in both main teaching sessions and breakout rooms. Staff felt that lack of audio-visual engagement stunted opportunities for students to interact with staff and collaborate with their peers, and at times hindered the dynamics of the planned sessions: *'My sessions, are not designed for me to talk AT students. Rather, talk WITH students.'* While some staff were frustrated at what appeared to be an unwillingness by students to engage, there was an acceptance by some that the situation was potentially more complex. Some students may have been limited by their access to technology and a stable internet connection or may not have felt comfortable being seen or heard online. As one staff member commented:

Students not engaging and not switching on their cameras (even in things like project labs) is pretty soul-destroying at times, but once I made the decision that this was due to student insecurity rather than my teaching, I just got on with it.

Student engagement with asynchronous content was also the subject of staff remarks. Staff highlighted how asynchronous content provided students with accessibility and flexibility, which was perceived to be particularly appealing to PG cohorts who were *'appreciative of materials being available to them in their own time.'* However, there were more general concerns over whether students (UG and PG) were actually engaging with the material, with some staff indicating that viewing figures for the pre-recorded content were *'very depressing'*. As one staff member noted:

Many of my students are reporting not watching asynchronous lectures - modules with no synchronous teaching seem to be almost entirely ignored.

While these perceptions were not necessarily reflective of student engagement across all modules with asynchronous content, it was suggested that the reason students might have struggled to engage was that *'having only videos of lectures was too monotone and not motivating enough for students'*.

Looking to the future. Staff indicated that they are keen to use the lessons learned from the period of online teaching to further develop their own practice and that of the department and wider university, however, the majority of staff indicated that they were also keen to return to face-to-face teaching. For many, being face-to-face offered opportunities to better facilitate personalised student support during sessions:

I just think being around people, being able to see their faces, helps with a multitude of things - like if someone looks confused about something, you can check if they are understanding what you have said. Being able to look at student work 'over their shoulder' while they work in groups, is much easier than asking them to share on a screen.

Some staff also stated that they felt that the return to face-to-face sessions would allow them to create a more engaging learning environment where they would be able to gain *'greater interaction and connection'* with students in the room, and support students to gain a sense of community by *'being with each other'*.

Not all staff were enthusiastic to move all sessions back to fully face-to-face formats, highlighting that utilising blended approaches could be beneficial for some modules, notably tutorials and larger lectures, in terms of staff workload and student engagement. Staff commented on how they would like to see a flexible and sustainable approach to incorporating online learning opportunities in the curricula, with some indicating that they would welcome the use of asynchronous content to *'support the F2F teaching'*. However, staff were keen to ensure that any *'videos should be followed up with some sort of live interaction every week'* to ensure that students had the opportunity to further develop and discuss their understanding of the content.

Staff also recognised that in order to facilitate future blended learning ambitions there would need to be a commitment from the department and/or wider university to ensure that staff could access *'more tech support.'* There was also a recognition that more work would need to be done in terms of planning and designing appropriate online learning opportunities.

Student Perceptions and Experiences of Online Teaching

Quantitative Student Responses

A comparison of the mean responses at UG and PG level showed significant differences in rating the success of the transition to online teaching and learning, $F(1, 565) = 10.69, p = .001$, the support received from the department/institution, $F(1, 565) = 9.31, p = .002$, and their overall satisfaction with their teaching and learning experience, $F(1, 565) = 7.35, p < .01$. UG students reported lower perceptions of success, support and overall satisfaction than the PG students. An overview of the UG and PG mean responses can be seen in Table 2.

Table 2. Overview of Mean (and standard deviation) Success, Support, and Satisfaction Responses for UG and PG (1-5 scale, with high scores being more positive)

	UG	PG
Perceived success of the transition to online	3.29 (.89)	3.70 (.89)
Perceived support from the department/institution	2.96 (1.07)	3.43 (1.16)
Overall satisfaction with the teaching and learning experience	3.08 (1.07)	3.50 (1.32)

Students were also asked for their views on synchronous and asynchronous teaching methods (Table 3). Questions related to either how much students liked the different teaching methods ('Enjoyment'), or how much they felt the different methods supported their learning ('Learning'). Two 2 (UG or PG) x 2 (synchronous or asynchronous) mixed ANOVAs were conducted on these different measures. Both analyses revealed that PG students were more positive than UG students (Enjoyment, $F(1, 563) = 11.03, p = .0009$; Learning, $F(1, 564) = 9.79, p = .002$). Additionally, overall synchronous teaching was rated significantly higher for Enjoyment, $F(1, 563) = 5.63, p = .018$, but not for Learning, $F(1, 564) = 2.07, p = .15$. There was no significant interaction for either Enjoyment, $F(1, 564) = 2.07, p = .15$, or Learning, $F(1, 564) = 0.11, p = .74$.

Table 3. Mean (and standard deviation) Scores for Students Enjoyment and Learning from Synchronous and Asynchronous Teaching Methods (1-5 scale, with high scores being more positive)

		UG	PG
Enjoyment	Asynchronous	3.25 (1.13)	3.46 (1.14)
	Synchronous	3.36 (1.01)	3.86 (1.05)
Learning	Asynchronous	3.27 (1.14)	3.59 (1.09)
	Synchronous	3.38 (1.00)	3.77 (1.14)

Qualitative Student Perspectives

The thematic analysis of student perspectives revealed three key themes: *experiences of emergency provision, accessing support, and teaching methods*. An overview of the themes is reported in Table 4.

Table 4. Themes and Sub-Themes Resulting from the Thematic Analysis of Student Responses

Theme	Sub-theme
1. Experiences of emergency provision	a. Appreciation for the department and university response b. Challenges of remote learning c. Value for money
2. Accessing support	a. Availability of help b. Assessment support c. Support for specific groups
3. Teaching methods	a. Benefits of online learning b. Perceptions of quality c. Perceptions of synchronous and asynchronous teaching methods

Experiences of emergency provision. Students expressed a diverse range of views regarding their overall experience during the period of online learning. Many students reported appreciation for the department and university and acknowledged that the situation was managed well under the circumstances, as indicated by comments such as *'you did your best during unprecedented times'*, but as is to be expected, students reported a number of challenges from the experience. One of these was a lack of sense of belonging. Many students struggled to form connections with other students or staff, and reported feelings of isolation and loneliness:

I've felt lonely and out of the loop I've made no friends I've found it overwhelming.... I find it extremely difficult to just do uni work at home on my own with no other students to talk to or teachers to check if what I'm doing is right

Students also felt that they missed out on opportunities to meet and bond with other students, with limited opportunities to socialise, as highlighted here by a student who felt that they were *'particularly socially unsatisfied struggling to make course friends which I believe to be important'*, and others commented on the loss of a sense of community. Many students reported struggling with their concentration and motivation, with one suggesting that *'due to the nature of this year I have had a hard time focussing and self-motivating to work at my best.'*

Students also reported that it was more challenging to get to know staff when working online, with them highlighting that *'lecturers have been supportive however it has been difficult to get to know lot of them. When teaching is in person it is much easier to get to know people and create a bond with them.'* Furthermore, some commented that they felt a general sense of disconnection with the university, with some reporting that they did not feel like a student, and some perceiving that they taught themselves the teaching and learning content for their modules. There were additionally some concerns about value for money during the emergency response period, with one student commenting that *'some of us haven't entered the university once this year yet have not been offered any compensation.'*

Accessing support. Another key theme that emerged was students' experiences of seeking help. Many students

reported feeling supported by staff in the department and were positive:

I have felt very supported throughout the year any issues problems requests for help in understanding or making sense has always been met and exceeded in some aspects

Other students, however, reported challenges and delays in seeking support from staff, and some noted inconsistencies in the support offered between staff and modules. One concern was that at times there was a delay in responses to Teams or email messages, with one student highlighting that ‘most lecturers or lab leaders took a long time to reply to questions. Most of the time would have figured it out by the time the question was answered in a few days.’ Furthermore, some students commented on the general difficulty in accessing help online, and feeling like a burden to staff:

I don't think it's anything to do with the uni personally but just everyone struggles a little more online - the availability to ask for help is not there as much..... I find myself not asking questions because I need someone there in person to sit me down and explain something to me

Issues relating to support for specific groups of students were also highlighted, with some international students, mature students, and students with disabilities raising specific concerns about feeling isolated during their studies.

Teaching methods. A large number of comments related to the relative benefits of online learning methods. These student perceptions suggest that for many students the period of online teaching and learning afforded them a variety of favourable learning experiences, however, it should be noted that these perceptions do not alone provide actual evidence of online modes being successful for actual learning. Key benefits reported included the accessibility (‘I have access to all my content it is easy and quick to access everything’) and flexibility (‘you are able to access asynchronous materials whenever you wish which is beneficial’) that the move to online had afforded many students. Furthermore, online learning was seen to provide inclusive benefits for some students, particularly those with physical disabilities and/or emotional needs, with some individuals commenting that they enjoyed the experience:

INFINITELY more comfortable working at home better for people (like me) with social anxiety better productivity when working at home on my desktop rather than those in the library or a laptop etc less commuting safer more independence... many many benefits. Online learning has been perfect for me.

Related to this, many students commented favourably that they were able to engage asynchronously with materials at their own pace and that online materials were very helpful for revision. Some students reported that they liked the inclusion of quizzes, they found Q & A sessions helpful, and that they felt that online learning had increased their independence: ‘I do think we gain more independence and in a sense agency over our studies’.

The quality of the materials was also a source of many comments. Many students reflected favourably on the quality of the materials (‘I have been very impressed by the quality of the teaching this academic year and in most cases I do not feel like I have missed out from an academic perspective’), but others perceived the overall teaching

quality to be lower than it had been in previous years, suggesting that *'teaching has not been up to same standard as in person'* and that some sessions had appeared disorganised and/or hastily planned. Technical difficulties were also highlighted, with students suggesting that not all staff were proficient with online modes of delivery (*'A lot of technical issues with some tutors struggling to use teams'*), and that certain sessions had been marred by poor audio quality.

Specific points were raised about experiences of synchronous and asynchronous modes of delivery. Advantages of synchronous delivery were that students were able to ask questions during the live sessions (via microphone or Team's chat) and many enjoyed the interactivity and potential for discussions in these sessions. Some commented that more live sessions would have been beneficial to their online teaching experience, and that synchronous sessions increased their sense of connection to the university:

I think live sessions are important for all modules therefore scheduling time to interact with each module would benefit students. This ensures students don't feel lost and unsure who to contact.

Some students reported that the use of breakout rooms during synchronous sessions helped them form relationships with others, but many commented on the difficulties with this approach, given that many students opted not to turn their microphones and cameras on or communicate with one another:

Breakout rooms have also been quite unsuccessful I have found because people tend to not talk in them so when a large majority of the time is spent in breakout rooms the time is basically wasted because they are silent

Many students suggested that camera use should be enforced, but some students were resistant to this idea, stating that staff should *'connect with your students properly and stop forcing us to turn the camera on in our own homes. I do not want to be treated like a school child under my own roof.'*

Some students commented on the lack of interactivity with asynchronous content, and that these sessions at times contributed to a feeling of disconnection with the university. Many students suggested that for asynchronous lectures short chunks of learning and shorter videos were preferred. Accessibility concerns were also raised, as not all materials had accurate subtitles.

Another issue related to asynchronous content was the effect that this mode of delivery had on a student's motivation to engage with and complete the content, with students highlighting that at times *'asynchronous learning makes it exceptionally difficult to remain motivated.'* For some, this led to students falling behind with their work as they struggled to effectively manage their time. As highlighted by one student, the flexibility afforded by the pre-recorded content allowed them to procrastinate, putting off their learning to a later date: *'I was getting lazy to watch the pre-recorded lectures because I had on my mind that I would be able to watch them whenever I want and that sometimes made me fall behind.'*

Despite some of the concerns linked to asynchronous delivery, many students did see value in asynchronous lectures and commented that they were an effective method for supporting their learning:

The asynchronous sessions particularly...the lecture content was great! It allowed me to make sure my notes were what they could be and could guide my readings around the topics. When it was live it was harder to navigate.

Notably, students acknowledged that the flexibility to play and pause videos, and work at their own pace through the content, allowed them to more effectively engage with the learning content. Although, there was a recognition that this was most effective for front-led information sharing type sessions, rather than collaborative / small group sessions.

Discussion

The present study investigated staff and student experiences of online teaching and learning during the period from September 2020 to July 2021 when social distancing and lockdown measures were in place in the UK. The period of ERT presented a novel opportunity to gain important insight into staff and student satisfaction with online learning and the broader benefits and challenges experienced. Regarding the first research question, it is clear that many staff and students saw value in online teaching and learning, and were largely satisfied with the process and organisation of transitioning the curriculum online, the support received and the overall experience and quality of online learning. Staff and students acknowledged the enormous efforts involved in placing the curricula online at short notice; staff reported good support from the department with technical challenges, and many students reported good levels of support from their personal tutors and module staff. Consistent with previous research (Roblyer et al. 2007; Nieuwoudt 2022), students judged synchronous and asynchronous approaches to be equally valuable for their learning, matching staff perceptions that these methods did not differ in their quality. However, it should be noted that perceptions of value for online learning are largely influenced by perceptions of the experience of learning, rather than actual learning that may have taken place (Naroozi et al., 2024).

Synchronous sessions were reported by students to be more enjoyable, possibly due to an increased sense of connectivity and belonging during the live interactions (Peterson et al. 2018). Indeed, staff felt they had been more positively received by students at UG level, demonstrating clear sensitivity to the student perspective. Complementing findings by Castle and McGuire (2010), undergraduate students are said to prefer online learning environments that mimic face-to-face interaction opportunities. Synchronous sessions that supported live audio/video interactions and engagement with online chat, as reported by our participants, are likely to have fostered this sense of satisfaction. Asynchronous approaches were deemed to be successful as a replacement for traditionally passive lecture delivery, as students valued the accessibility, flexibility and self-paced nature of the materials, and how easy they were to revisit for revision purposes. However, some students found it difficult to keep up engagement with asynchronous content and reported issues in terms of both course belonging and support, particularly when modules were delivered in an asynchronous only manner as it led to some students feeling

isolated and disconnected from other students and staff. The provisioning of asynchronous online learning also promoted tension between staff and students; staff faced enormous workload pressures to develop asynchronous content and respond to student communications at a time when they were also being impacted by the pandemic (e.g., social isolation, home-schooling), but students felt frustrated when they did not receive an immediate response from staff. Issues concerning engagement and workload pressures are not uncommon in online learning (Beard and Harper 2002, Banihashem et al. 2023_b), however, the findings of this study serve to highlight the need for HE institutions to offer support for staff and students in developing appropriate expectations, skills (e.g., digital skills, time management) and self-efficacy for online learning.

Regarding the second research question, PG students were generally more positive about online learning experience than UG students, with statistically significant differences evident in the analyses of all quantitative measures associated with online learning satisfaction. This may have been due to PG students being more ready for online learning in terms of motivation, self-regulation and independent learning skills (Artino and Stephens 2009; Demir Kaymak and Horzum 2013). Equally, it may be due to smaller, more cohesive cohorts at PG being more conducive with the development and maintenance of a sense of community and belonging.

In terms of our third research question, the collective findings of our study provide some clear opportunities for reflecting on the lessons learned during the extended period of online teaching and learning, and the implications of these for the future of online learning in HE. Firstly, our findings suggest that while online learning can provide a range of opportunities for interaction, communication and feedback, it may not be perceived as an adequate replacement for the in-person support and connection that can be afforded in face-to-face teaching and learning environments, where more cues, spaces and contexts may facilitate accessing and receiving support and foster a sense of belonging (Kauffman 2015). Where online learning is the preferred mode of delivery, careful consideration should be given to both asynchronous and synchronous delivery modes to ensure that they offer opportunities for meaningful monitoring, feedback, support and collaboration for both staff and students. Given the social challenges that online learning can bring (Adnan and Anwar 2020), particularly when faced with the challenges of large cohorts of students (Nyagope 2023), finding effective strategies to align staff and student expectations, and promote inclusive avenues for communication and support (e.g., live online discussions, engagement with online chat feeds, discussion boards) is imperative for developing and maintaining satisfaction with the adoption of future online learning in HE.

Secondly, satisfaction, quality and the sustainability of online teaching and learning approaches (notably, the development of high-quality asynchronous resources) requires adequate resourcing and support for staff. Online teaching and learning materials require careful planning to ensure that they are pedagogically appropriate, consistently applied across modules and courses, and demonstrate equivalence to face-to-face teaching and learning opportunities (Doucet et al. 2020). The provision of future high quality, flexible online learning opportunities therefore presents some key and complex challenges. Primarily, it requires staff to have both a pedagogical understanding of online learning approaches, and the technical skills with which to enact their plans. Next, the development of flexible, online opportunities has the potential to be a time-consuming endeavour. Staff therefore need time to engage with the planning, development and organisation of online learning, but equally

time to upskill their digital and pedagogical skills and understanding.

The present study is not without limitation. Firstly, we acknowledge that data collection for this study was conducted during the height of the Covid-19 pandemic and government enforced social distancing restrictions. While the extended period of online learning may not have been indicative of normal online learning conditions, it did provide a unique opportunity for staff and students to gain experience of and reflect on online learning approaches. Therefore, we feel that it is feasible for these reflections to provide value in framing potential post-pandemic approaches to flexible online learning. Secondly, our survey approach is subject to selection bias. The survey was distributed to all staff and students in the Psychology department, of whom a subset volunteered to take part. Therefore, we cannot assume that the sample is representative of all staff and student views. Thirdly, while there is support for the use of face-valid single-item measures in research, we acknowledge that that single-item measures have uncertain reliability and may not fully capture the constructs under investigation (Allen et al., 2022). Finally, while staff were provided with guidance to support the transition of their modules/sessions into online formats, we acknowledge that differences in interpreting and actioning this guidance may have resulted in some differences in staff and student experience. Future research should account for these limitations.

This study presented here is one of the only large-scale studies that explores online learner satisfaction from the perspective of online learning support, quality and organisation in a UK context. Furthermore, it offers insights from within the same suite of courses offered by a large HE department, considering both student (UG and PG) and staff perceptions of the emergency move to online learning necessitated by the Covid-19 pandemic. This fast transition presented clear challenges to both staff and students working and studying in HE but was generally met with positive perceptions of online learning satisfaction. Retaining some of the strengths of online delivery in terms of flexibility, accessibility and the opportunity to further develop independent learning skills, is an important consideration for institutions as they seek to embed more flexible modes of delivery. One option could be for HEIs to explore new alternative modes of course delivery such as HyFlex (Hyper Flexible), a flexible model of delivery in which students can choose to engage with classes delivered in person or via online means (Kohnke and Moorhouse 2021). However, developing high quality online materials to compliment in person teaching sessions requires staff to have the time, knowledge and skills to enact their plans. Additionally, students need to have the digital proficiency and resources to enable them to engage with the diverse digital requirements of the curricula.

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