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# Commuter students: does reducing the need to travel enable more inclusive, equitable participation?

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## Abstract

Commuter students number 40% of Higher Education (HE) students in the UK. This is a direct consequence of initiatives to widen participation to HE to underrepresented groups, many of whom are unable or unwilling to relocate to reside at the site of learning. Commuter students have significantly poorer experience and outcomes than their residential counterparts. It is important to reduce this attainment and experience gap. This paper explores the possibility that reducing the need to travel to HE, by increasing online learning, could achieve this. The paper presents empirical evidence from a series of in-depth interviews with commuter students at an English HE Institution, reflecting on their experiences of online learning during the Covid pandemic lockdown. Findings confirm that reducing the need to travel, through greater use of online HE, post-pandemic, could have multiple benefits for commuter students, enhancing engagement, experience and outcomes. However, such a move must be accompanied by wider institutional changes to pedagogy, policy and processes, which acknowledge the decline of the residential model of UK HE in the widening participation era, to minimise potential negative effects.

**Key words** Commuter students; Higher Education; Covid-19; lockdown; online learning

## Introduction

Widening participation (WP) strategies aim to remove barriers to entry to Higher Education (HE). Focusing on underrepresented groups, strategies seek to improve access, progress and outcomes.

WP strategies have succeeded in increasing participation in HE in the UK. 53.4% of young adults now attend university compared to around 15% 30 years ago (Bolton, 2022: 26). Participation has widened to historically underrepresented groups,

considering ethnicity, income, location, qualifications and school type (DfE, 2023).

However, increasing and widening *enrolment* alone does not guarantee equality of *experience* or *outcome*. Institutions must also adapt to meet the needs of their new cohort. In the main, adaptations have focused on adapting aspects of their provision, including pedagogic initiatives, from the institution-level inclusive curriculum framework to the individually-focused specific interventions/support. However, these adaptations have been insufficient at scale. Inequalities persist, in attainment, engagement, experience and outcome.

This paper suggests that one reason for the persistence of inequality is institutions' failure to recognise and adapt to the fundamental difference in how non-traditional students participate in HE.

As participation has widened and increased, there has been a shift from residential to non-residential participation. Today, 40%<sup>i</sup> of full-time HE students, studying at UK Higher Education Institutions (HEIs), are commuter students: 'students who continue to live at home while studying, rather than moving into student accommodation' (Kenyon, 2024). This reflects the fact that many of the characteristics that are associated with being a non-traditional student make a student unable or unwilling to relocate (Newbold, 2015), including employment, family commitments, social networks, caring responsibilities, home ownership and/or reluctance to leave the local community (Burke, 2012; Burlison, 2015). For many, relocation is unaffordable (Donnelly and Gamsu, 2018; Wakeling and Jefferies, 2013). The rapid increase in student numbers has also led to an undersupply of student accommodation, increasing prices and further encouraging students to remain at home (HEPI, 2023; Whyte, 2019).

However, HE delivery continues, in the main, to be based on the residential model – the idea that students will move away from home to attend university, living on or very near to the site of learning (White and Lee, 2020). This is unlike the majority of international HE sectors (c.f. Biddix, 2015; Crawford and Mackenzie, 2018; Soltani et al., 2019) and reflects the long-standing culture of UK HE: that students should experience a fully immersive HE experience (Jury et al., 2017).

Institutions have been slow to recognise this fundamental shift in the nature of participation and to adapt their pedagogy, policies and processes. Operations, including assessments, extra-curricular activities, facilities, learning support, pedagogy and

timetabling, continue to be premised on the residential model of HE, structured for the residential student, provided at a time and in a place that assumes that students live on or near to campus (Maguire and Morris, 2018; Thomas and Jones, 2017).

However, pedagogy, policies and processes that are based on the residential model are neither accessible nor suitable for commuter students, because they do not acknowledge the need to travel. This has had profoundly negative impacts for commuter students' learning and belonging. Commuter students have a *poorer student experience* than their residential counterparts (Neves and Hillman, 2019). They find it *harder to engage* in learning activities, extra-curricular activities, social activities and their learning community (Jacoby, 2015; Pokorny, 2015; Stalmirska and Mellon, 2022; Thomas, 2019). Consequently, they have *poorer outcomes* than residential students, doing significantly less well in their studies (Maguire and Morris, 2018), being less likely to achieve a 'good' degree (Neves and Hillman, 2018), more likely to fail or drop out of their studies (OfS, 2019) and less likely to gain graduate employment after graduation (OfS, 2021).

It is essential to reduce these gaps. The intersectionality of commuter student status and underrepresented characteristics suggests that our widening participation initiatives cannot succeed without action to address the needs of commuter students.

The experience, engagement and attainment gaps exist because students are unable to fully participate, engage and achieve, because they have to travel. Physical distance and/or an absence of acceptable, accessible, affordable or available transport (DETR, 2000) to learning, support and other facilities, at the time and place that they are available, directly excludes students from these services (Kenyon, 2011; OfS, 2020). This contributes to a feeling of cultural distance and difference, of not belonging, because the culture and environment are so clearly built for (the needs of) others, namely, residential students (Bowl, 2010; Jury et al., 2017; Holton, 2018; Meuleman et al., 2015; Pokorny et al., 2016).

On this basis, we may hypothesise that reducing the need to travel would enable greater engagement, better experience and higher outcomes for commuter students. This hypothesis draws upon a well-established literature, which explores the existence and consequences of transport barriers to access and participation, in all areas of social policy, including all educational levels<sup>ii</sup>, across the globe (Kenyon, 2017). One way to reduce travel is to replace (some) physical access with *online* access,

removing the constraints of time and place, which may enable greater engagement, better experience and higher outcomes for commuter students. This hypothesis draws upon literature that considers the potential of online access to enable greater participation, in a range of activities, than is possible through physical mobility alone (Kenyon et al., 2003; Kenyon, 2010a).

We may further hypothesise that the development of online access would reduce commuter students' *cultural* exclusion, inducing instead a feeling of acceptance and belonging, because online pedagogy, policy and processes would be designed for their needs.

Whilst these hypotheses suggest that virtual access *could* substitute for physical access, the inclusionary benefits are not guaranteed. We could simply be swapping 'new barriers for old' (Gorard and Selwyn, 1999: 528), due to digital inequalities in, for example, devices, skills and time, considering both staff and student digital capabilities (Dhawan, 2020). Thus, where we hypothesise benefit, we could easily hypothesise the development or entrenchment of a second-class HE, where existing divides are replaced or strengthened by those based on residential and non-residential status. This raises the question of whether or not online education *should* be used.

The Covid-19 pandemic presented an opportunity to conduct evidence-based research into whether or not online education *could* be used and if it *should* be used to benefit commuter students in UK HE.

The Covid-19 pandemic disrupted Higher Education (HE) across the globe. Lockdowns, social distancing and other 'Covid safe' practices meant that, for the majority of Higher Education Institutions (HEIs) worldwide, face-to-face, in-person teaching was not possible. Learning, teaching and assessment moved entirely online (Dhawan, 2020; Zhiang et al., 2022).

In England<sup>iii</sup>, institutions were instructed to close their doors on 20 March, 2020, for the remainder of the academic year. Whilst Universities reopened their campuses for face-to-face teaching in the new academic year in September 2020, following a period of minimal lockdown restrictions between July and September 2020, much teaching remained online, as the country experienced fluctuating restrictions (Hubble et al., 2021). This culminated in a second full national lockdown for the month of November, then a third national lockdown from January to March, 2021 (Brown and Kirk-Wade, 2021). Gradual easing of lockdown restrictions from April 2021 enabled Universities to return to face-to-face teaching in England at the start of the new academic year, in September

2021, following more than 18 months of HE delivered almost entirely online.

For 18 months, students were participants in a 'natural experiment': an event or intervention that is not under the control of the researcher, but which can usefully be studied, because is expected to cause behaviour change and/or have an impact upon participants (Craig et al, 2017; Madic et al, 2020). In this case, the 'intervention' was the enforced move from *physical* mobility to *virtual* mobility to access HE – from face-to-face to online, learning, teaching and assessment.

This paper reports findings from research that took the opportunity presented by this natural experiment to investigate the impacts of the move from face-to-face to online, for commuter students. In line with the studies reviewed in Arday (2022), the research sought to investigate the impacts of pandemic learning to shape an inclusive, evidence-based, post-pandemic future for online learning, teaching and assessment, which encourages greater equity in access, with a specific focus on improving access and equality of participation for commuter students in the UK.

The objectives were as follows.

- 1) To understand if participants experienced mobility-related educational exclusion, pre-pandemic and to understand if this reduced their participation in HE.
- 2) To understand if the elimination of the need to travel to HE during the pandemic overcame mobility-related barriers to higher education, leading to more inclusive, equitable participation for commuter students.
- 3) To understand if this *could* benefit commuter students in the ways outlined above, post-pandemic and if it *should* be used in this way, post-pandemic, by exploring benefits and disbenefits to a) the elimination of travel and b) online education.

The paper proceeds through the following sections. First, the methodology, considering method, setting and sample, noting limitations. Results are presented and discussed, addressing each of the aims, above and structured around the research questions.

The paper concludes with a discussion of the implications of the study for initiatives to widen participation. This suggests that reducing the need to travel would facilitate greater access to HE for commuter students. However, increasing online access must be part of a wider revision of pedagogy, policies and processes,

across institutions, to reflect the changing nature of participation in many Higher Education Institutions in the UK.

## Methodology

### Method

Research design was influenced by a constructionist epistemology (Charmaz, 2010). 12 online, unstructured, depth interviews were undertaken, with the aim of generating contextual understanding of the experience of being a commuter student, as interpreted by the participant. Unstructured interviews were chosen to meet this aim, enabling subjects of concern to participants to emerge, with their own meaning and context (Liamputtong and Ezzy, 2006). Unstructured interviews allow the researcher to encourage participants to reflect on their experience and examine/deepen their own responses, providing richness and depth. This also allows interpretation to emerge from the participant's perspective, in real time, rather than being imposed by the researcher afterwards.

Unstructured interviews are also particularly useful at the beginning of an inductive research process, to investigate a subject about which little is known. Their unstructured nature enables reflexive adaptation throughout the research process, as knowledge emerges. Whilst there is an emerging literature considering commuter students' mobility-related educational exclusion, alongside an established literature concerning the impact of virtual mobility, the novelty of this study in joining these theories and applying them to the pandemic necessitated an inductive methodological approach.

Interviews were also a pragmatic response to an unparalleled research challenge: conducting qualitative research during a pandemic lockdown, with participants unused to communicating online.

Interviews took place at the end of summer 2021, allowing students to reflect on their experience of lockdown learning. Interviews lasted 30-60 minutes and were conducted by the author. All interviews opened with the same general, open question, asking participants to discuss life as a student in the present context. Beyond this, there were no standard questions. As in Jones (2020), by taking a narrative approach, the aim was to allow the participant to direct their own story, discussing what they felt was important.



As is common in inductive research design, the interview proceeded as a conversation and follow up questions focused on clarifying and deepening reflection, probing, challenging or remaining silent to enable participants to think and reflect (Heath, 2011). This preserved the collaborative, relational research relationship (Benson et al, 2012).

Students naturally contrasted lockdown learning with previous experiences of online and face-to-face learning and looked ahead to the new academic year, reflecting on their hopes for future learning. Pre-lockdown mobility patterns and the experience of the commute also emerged naturally, as participants contrasted previous, current and future learning experiences.

Interviews were conducted via MS Teams. Interviewer and participant were in private rooms, to reduce potential bias due to concerns about being overheard. Discussions were not recorded because, at the time, recordings on MS Teams were not considered to meet the criteria required by the ethics committee regarding the storage and retention of research data. Detailed written notes were taken during the interview, with direct quotes clearly identified. Rigour was ensured by confirmability – checking, confirming and discussing their meaning with participants, ensuring participant validation. This ensures accuracy and trustworthiness of the transcript, minimising researcher misinterpretation and bias at the point of recording (Gibbs, 2009; Perakyla, 2009).

Analysis was content-focused, following the systematic process of thematic, constant comparative analysis, advocated by Corbin and Strauss (1998). This modified approach to qualitative analysis for the discovery of grounded theory enhances the original approach (Glaser and Strauss, 2000) by recognising the influence of previous knowledge in analysis, whilst retaining analytical rigour through constant reflection. Memos were written immediately at the close of each interview. Open, axial and selective coding were applied to individual transcripts, to allow consideration of participant characteristics in the analysis. Transcripts were coded as soon as data were collected, with constant comparison between the coded transcripts and newly collected data. This enabled a continuous interplay between analysis and data collection, enabling exploration of emerging theories in future interviews. The entire body of interviews was recoded, as a whole, after data collection was completed. Categorisation followed, to identify common themes.

The study received ethical approval from [anonymised] University, ensuring procedural rigour.

## Setting

Interviews were conducted with commuter students at [anonymised] University. Founded in 1962, [anonymised] gained university status in 2005 and has a focus on widening access to participation in HE. The main campus, serving 88% of the 15,000 students, is in the centre of [anonymised], a cathedral city in the south-east of England, in the UK. As teaching space has grown, services including the library, sports centre and student accommodation have moved off campus, but most remain within a mile of campus. All first-year students are guaranteed a place in university accommodation, which includes halls of residence, shared houses and houses for families. There is no student parking at the university, but students with mobility needs who cannot travel by public transport can apply for a permit for an accessible space. A discounted, yearly bus pass can be purchased, allowing travel on certain routes within the city (provided by an external provider).

In 2021, 76% of UK-based students registered to attend the main campus were commuter students<sup>iv</sup>. The percentage of commuter students has increased steadily in the past 10 years, from 66% in 2012. Data do not suggest a notable increase in the percentage of students registering as commuter students in 2020 or 2021, during the lockdowns.

## Sample composition

Sampling was purposive, guided by theoretical concerns (Charmaz, 2010: 101). There were two inclusion criteria (1) to be a commuter student (2) to be a student at the University between September 2019 and June 2021, experiencing both face-to-face and lockdown learning, teaching and assessment.

Within this, a maximum variation strategy was employed, to explore the influence of a range of characteristics identified, in the literature, as influencing the travel and student experiences. Considering *travel*, these are journey duration, mode use and residential location. Considering *student experience*, these are programme of study, level of study and part-time/full-time status. Cutting across both literatures are demographics, including age, ethnicity, gender and household structure. This variation emerged naturally.

The recording and publishing of detailed demographic data was not agreed by the ethics panel, because the small sample size may allow individual participants to be identified. The sample is given in Table 1. Whilst the variation in the sample enhances generalisability of the research, the reader should note that the size of the sample and the conduct of the research at a single UK

Higher Education Institution may affect the extent to which the findings of this study can be applied to other situations.

Table 1 inserted about here, please.

Recruitment was via newsletter, emailed to all students registered at the University in May, 2021, a student blog and social media posts<sup>1</sup>. Recruitment messaging asked commuter students to get in touch, to share their views on travel and online learning, in the context of the Covid-19 pandemic. Messaging revealed sufficient information to ensure a relevant sample and satisfy ethical conditions, but as little information about the study itself as possible, to reduce possible bias. Recruitment was halted when the maximum number of participants had been achieved. Participant information letters and consent forms were sent to 16 respondents. 4 were unable to participate, due to scheduling issues.

Participants were given a £10 gift voucher, to thank them for their time.

## Findings and discussion

The paper now presents the results of the research, subdivided with reference to four research findings.

### **Commuter students' perceptions of mobility- related educational exclusion and its impact on participation, pre-pandemic**

Results confirm that all participants experienced mobility-related educational exclusion, pre-pandemic. It emerged strongly and naturally that all struggled to attend and engage at university, supporting Thomas' finding that commuter students engage in fewer activities in the 'academic, enhancement and social spheres' than residential students (2019: 290). As the following quote illustrates, the nature and extent of participation in learning was determined by travel.

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<sup>1</sup> n=10,416. Student blog 228 views during recruitment period. Social media is Twitter and Facebook closed groups.

'The train times really would be a defining factor in how I would plan the day, drop books off, really how I would engage in everything to do with Uni.' Participant 5.

Participants discussed feeling 'disconnected' from university, excluded from their learning community. They discussed not belonging, being excluded from peer learning, support and other benefits of being 'part of it' (Participant 5). However, they were also excluded from home, because of the time they spent travelling.

In this sense, results suggest that commuter students occupy a liminal space, where they are neither students nor who they were before, having begun but not been able to fully complete the transition between communities, identities and roles. Participants became stuck between their previous and future states of being, unable to separate, transition and become (Tomlinson, 2023). They described feelings of disorientation, emotional exhaustion, loneliness and uncertainty that accompany liminality.

This finding moves beyond the notion of dwelling in mobility, which has been observed in sociological studies of mobility as a positive experience, a 'gift' of travel time. Rather, commuter students remain in a tense space, which they cannot transition through.

Findings suggest two causes. *First*, the multiple costs of travel, as uncovered in the literature review, summarised by Participant 2 as 'exhausting, tedious, unreliable, worrying'. *Second*, the incompatibility of 'university life' – cultures, practices, structures – with commuting.

It emerged strongly that the design of the teaching timetable around the traditional, residential student, without consideration of the acceptability, accessibility, affordability and availability of travel to learning, is the primary exclusionary factor for commuter students. All participants described the difficulties of a 9am lecture: getting up at 6am; increased financial costs of travel at peak time; for some, inability to travel due to lack of childcare before 8am. Lectures after 4pm are challenging for all participants: travelling at peak times increases unreliability and the risk of not getting home in time for, for example, childcare, or employment. Some discussed increased safety fears, when travelling by public transport or walking at night; many highlighted that late travel leaves participants without a contingency, if the final bus/train does not run.

Finally, all participants discussed that attendance at all activities is determined by a cost-benefit calculation, calculated for each individual activity, based on current circumstances and previous

experience. It emerged that, where participants have a one or two-hour lecture, timetabled on two or three days of the week, they are unlikely to consider that the benefits of attending all sessions outweigh the multiple costs of travel and, therefore, are unlikely to attend all sessions.

### **The impacts of the elimination of the need to travel to HE during the pandemic**

All participants stated that online education was more accessible than offline education, eliminating multiple costs of the commute. They saved money and time; it was more comfortable, convenient and reliable.

The removal of practical barriers to learning also reduced the physical and emotional wellbeing costs of the commute, including tiredness, anxiety and stress. This enabled participants to experience a better quality of learning, as illustrated in the quote below.

'Removing the commute made me less stressed, so I could come in with a clear mind, rather than having a million things running around in my head...' Participant 10.

Quinlan (2016) finds that emotions are fundamental to learning, suggesting that positive emotions have a positive impact on performance, encouraging deep learning. Negative emotions and/or the absence of positive emotions can be a barrier to deep learning. As such, it is likely that removing negative emotions experienced by commuter students and replacing these with positive emotions will enable deeper learning, which may contribute towards a reduction in the attainment gap. The same participant highlights the positive impact for deep learning, in the following quotation.

'After uni I had time to process what I had learnt, rather than rushing for the school run, home again...' Participant 10.

Participants reported that positive emotions, including belonging, engagement and enthusiasm, replaced the negative emotions experienced during the commute, as a result of the move online.

Participants discussed deeper engagement with their learning community, because there was no longer a noticeable divide, in attendance, culture or interactions, between commuter and residential students. This is revealed in the following quotation, which contrasts the online and pre-pandemic learning experiences and highlights the heightened connection during pandemic learning.

'I'm already disconnected as a commuter student... disconnected from the whole uni experience. Feeling like you're part of it is important... Being a commuter, I only really got the learning out of it [before].'  
Participant 5.

For some, this sense of inclusion, of students being in the same situation, on equal terms, empowered greater engagement and participation in taught sessions and peer networks. For others, greater engagement and participation were due to the 'security of the screen' – virtually raising a hand, asking questions through the chat box, speaking without being seen.

'I would ask questions in a lecture, but I definitely did this more online.'  
Participant 2.

The attainment gap is likely to be further reduced if commuter students reinvest their saved from the commute. All participants suggested that their saved time was put to good use, including: study; sleep; extra paid employment.

Removing the need for travel enabled participants to engage for longer. This enabled a deeper sense of engagement with the subject, through focus and flow. In addition, all participants suggested that they attended more taught sessions online than they did offline, because it was easier to attend, overcoming travel-related problems and resolving conflicts between home/work responsibilities and education.

For many, a key benefit of the move to online education was the change in how teaching was structured. For most, teaching was via pre-recorded lectures and online tasks, followed by shorter live sessions, which focused on clarification and discussion and/or greater availability of one-to-one consultations with lecturers. This made learning, peers and academic support more accessible.

All participants suggested that this structure removed many barriers to engagement that are imposed by the traditional university structure, based on the residential model, removing the need for attendance at a specific time and place. This enabled them to learn when and where convenient and at their own pace. This, alongside the time gained by removing the commute, ensured that they were prepared for learning in live sessions and up to date with their work.

### **Post-pandemic: the positive and negative effects of the elimination of travel**

The above discussion reveals that *increasing the ability to attend* and/or *decreasing the costs of attendance* led directly to

greater attendance and engagement. However, when participants were prompted to discuss their commute in depth, it emerged that, for ten of the twelve participants, there were many benefits of commuting, which were lost with the elimination of travel. These benefits were hidden: participants were not immediately conscious of the benefits, until they were prompted to reflect. However, their loss when the commute is eradicated may have a negative impact, in the longer term.

Benefits include *wellbeing time*. Participants referred to 'enforced reflection time' and the benefit of being unable to do anything but travel. This feeling was common across all modes and reflects the notion of travel time as a gift, an opportunity to be mindful and in the moment, to be alone (car/walk) or alone amongst strangers (public transport), to have no interruptions and no pressure.

Participants discussed the commute as creating space between home and work, to mentally prepare for the next physical and/or emotional space. This is encapsulated by the following participant:

'The commute is the thing I miss most from being at home... It's more of a well-being benefit, just being with my thoughts and being with myself, my music and myself, not being interrupted.' Participant 7.

Related to this, participants found that the commute provides a useful *time boundary*, indicating the start and end of the working day. Without the commute, for some, study time expanded, but was less constructive. Participants discussed using the commute for *social activities* and *physical exercise*. Participants recognised the benefits of this (now lost) social time (talking on the phone or in person, reading social media) and walking for their physical and mental health.

Finally, participants reflected on the productive use of travel time to prepare for study. For participants with shorter journeys, this was, in the main, being mentally prepared for study, but for those with longer journeys by public transport, this included reading and writing.

Participants had not made space for these activities during online learning. It is not clear if this is because participants were not able to do this, because of the specific circumstances of lockdown (restrictions on physical movement, lack of time due to home schooling and other additional responsibilities). However, the desire to reclaim the benefits of the commute may be an environmental concern, if the elimination of the commute to HE induces replacement travel to meet these benefits (Mokhtarian, 2009; Ravalet and Rérat, 2019).

## **Post-pandemic: the positive and negative effects of online education**

Moving to consider negative effects of online education, whilst the elimination of the commute to HE during the pandemic overcame mobility-related barriers to education, *new* barriers to inclusion and engagement emerged, for these participants.

The first key insight here is that online learning is fundamentally different to offline learning, requiring different resources, activities and skills.

It is perhaps obvious that learning online requires infrastructural resources, in contrast to on-campus learning, including study space, furniture, books and other library resources, hardware, software and/or broadband infrastructure.

Whilst the results highlight the digital divide, in terms of access to and skills in the use of technology, supporting conclusions drawn by Faura-Martínez et al (2022), in their study of student pandemic experiences, more prevalent in this study is the 'living-space divide', in terms of a physical space, or learning environment, that supports learning and wellbeing (also observed in Guppy et al., 2022; Raaper et al, 2022).

This 'living-space divide' is a key finding of this research. A desire for local study spaces emerged naturally, supporting findings in the wider pre-pandemic literature that suggest that local study spaces could greatly enhance the experience and engagement of commuter students who are distance learning in Australia (Crawford and McKenzie, 2022) and the USA (Jacoby, 2015).

However, of particular importance, going forward, is the finding that successful online learning requires less tangible resources, which are not related to infrastructure and which participants did not need – or did not recognise that they were using – when they were learning on campus.

Learning online during the pandemic created a need for access to learning, support and wellbeing resources beyond the immediate teaching activity. Many of these resources would traditionally be thought of as additional student support services, provided for the few, including library and information skills support, learning skills support, dyslexia support and wellbeing support. However, participants suggested that, whilst they had not needed these resources when learning on-campus, they did need these services when teaching transferred online. This is because online teaching, during the pandemic, became more



functional, focused and rigidly timetabled. As such, there was less informal learning and wellbeing support available through serendipitous conversations outside of timetabled sessions.

These results highlight the importance of creating space for support, to substitute for the serendipitous support that students experience on-campus, if learning transfers online.

This links to the importance of access to a learning community. Participants discussed the benefits of informal interactions with other learners, for energy, learner confirmation and support. Crucially, participants did not recognise this as an on-campus 'resource', until they noticed that it was missing, online.

Participants emphasised the importance of social networks, student learning communities and support networks – also a key finding from a pandemic experience study by Raaper et al (2022). In line with Fuzi et al's student pandemic experiences study (2022), results also highlight the importance of socialisation in an effective, fulfilling HE experience which, for Newbold (2015), is the HEI's responsibility. These findings support findings by Smith (2023), in which the author discusses the importance of academic and social integration through student/staff interaction, participation in extra-curricular activities and peer-to-peer interaction. To ensure a sense of belonging in the transition to online, investment in opportunities for both deep and broad socialisation is essential.

This is encapsulated in the following.

'Do I want to go back [to on-campus learning]? I'm to-ing and fro-ing, but I need that learning community now.' Participant 10.

Online learning requires a different set of academic skills to on-campus learning. For these participants, whilst offline abilities in gathering and retaining knowledge translate well to online HE, the ability to learn skills and develop understanding do not translate easily to online HE. For example, participants suggested that their skills in offline discussion and debate did not transfer easily to online, because they relied on verbal and visual cues that they could not interpret online.

Results also suggest that motivation, productivity and time management skills change for online learning; gathering and interpreting feedback is different; online group work requires a new skill set.

On reflection, the majority of participants would value a blend of online and offline learning, such that some offline learning is replaced by online learning, whilst some sessions remain on-campus. Participants suggested that this is likely to benefit both

commuter and residential students, widening participation, overcoming barriers to access, providing more flexibility.

Implemented alongside enhanced and reimagined student support, this change in the provision of HE has potential to support the delivery of a more inclusive learning society, described in Thompson (2019) and Universities UK (2022). However, the final key finding is that the study surfaced the importance of staff buy-in to online learning.

Participants expected and forgave differences in staff skills. However, the online environment exposed the differing levels of commitment to students amongst different members of staff. This supports findings in Guppy et al (2022) that staff development to reduce the 'digital disconnect' – the gap between the availability and the adoption of technology – is essential, including both skills training and behavioural interventions, to address willingness as well as ability to adopt appropriate online teaching behaviours.

## Conclusions

This research supports findings from the literature that university cultures, practices, structures that were developed for a residential student body are incompatible with the needs of non-residential, commuting students. As a result, commuter students in this study experienced mobility-related educational exclusion. With evidence suggesting that the number of students in the UK who are continuing to live in their parents' or guardians' home continues to be higher than pre-pandemic levels (OfS, 2023), addressing the exclusion and inequality of outcomes of commuter students is ever more pressing.

Results suggest that online access to learning, teaching and assessment could address this. Online education during the pandemic overcame mobility-related barriers to education, which enabled greater participation, engagement and a more positive student experience than was previously possible. In addition, there are benefits of online learning that are likely to be experienced by all students: the adoption of flipped learning (Al-Samarraie et al., 2020; Sointu et al., 2023); deeper engagement with a broader learning community; increased access to academics. Increasing access to online learning could, therefore, be of benefit for all students.

However, results from this study highlight important caveats to these conclusions. Online HE brings new barriers to inclusion and engagement. Simply replicating the pandemic online offer,

without adapting resources, activities and skills – both academic and student – to address the differences between the disciplines of offline and online learning, will result in a poorer online learning experience.

In this sense, this research supports Hodges et al (2020) in drawing a distinction between ‘emergency remote teaching’, experienced by students during the pandemic and effective, robust online learning, which is designed over time and with full consideration of the subject, student body, available technologies and an ‘overall ecosystem specifically designed to support learners with formal, informal, and social resources’.

This links to the second caveat. This paper reports findings from a study with a small sample, at a single UK institution, conducted during a specific, unusual event. Whilst the natural experiment method is tried and tested and the interview method is robust, the nature of the sample suggests that the generalisability of the findings must be considered. As is appropriate in inductive research, the study did not aim to be representative, rather, to gain theoretical saturation using a maximum variation sample. Whilst it can be considered that these achievements are a strength of this research, further research to establish comparison cases, with a larger and more diverse sample, is essential. This will deepen understanding of commuter students’ profile and needs, to understand the acceptability and impacts of a post-pandemic move to different extents of online learning, for these students.

Therefore, whilst results suggest that online learning *could* have an important role to play in strategies to reduce commuter students’ mobility-related educational exclusion. However, before we conclude that it *should* play a role, further research, with a larger, more diverse sample, is essential.

This caveat does not lessen the finding that, if online learning is to be successful in overcoming mobility-related educational exclusion for commuter students, post-pandemic, institutions must invest time and other resources in planning, design, software and student learning/wellbeing support.

Whilst further research to explore the potential benefits of this approach is essential, to guide policy development at the institutional and national levels, this paper concludes with specific recommendations, for institutions and policy makers.

- Conduct equity assessments. Equity assessments are an essential part of any move to address commuter student inequality, to ensure that enhanced online provision does not replace mobility-related educational exclusion with

virtual mobility-related educational exclusion, for commuter students.

- Avoid hybrid teaching. Hybrid models, with face-to-face teaching continuing for residential students but moves online for commuters, have the potential to maintain a differential experience for residential and commuter students, where those who can learn offline continue to have a better experience, engagement and outcomes than those who learn online.
- Pay attention to equal access to the provision of learning space resources, as well as digital infrastructure, including physical infrastructure, learning, social and wellbeing support.
- Enhance student skills for online learning, including not just IT skills, but also skills in time management, stress management and how to participate effectively in online learning communities, build belonging and developing both broad and deep socialisation.
- Address staff development, including skills training and behavioural interventions, to address willingness as well as ability to adopt appropriate online teaching behaviours.

The pandemic has led to significant progress in developing online teaching and learning, considering the ability and willingness of staff and students to engage. In the words of Yang et al (2022: 605), this has 'potentially seismic consequences for higher education access'. The consequences, however, could yet prove 'encouraging or potentially perilous' (ibid). It is the hope of the author that, by presenting the advantages and disadvantages of online education, as experienced by commuter students during the pandemic, institutions and policymakers could progress towards the former consequence and take care to avoid the latter.

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<sup>i</sup> This equates to approximately 1.1m students (HESA, 2022a). Data are only available for full-time students (n=c. 2.1m). Calculation is number of full-time students living in the parental/guardian home during term-time plus the number of full-time students living in their own permanent residence during term-time, as a percentage of the total. Data for 2020/21.

<sup>ii</sup> See Butler and Hamnett, 2007; Hopson et al., 2022. Pre-school (Cahill, 2010; Pennerstorfer and Pennerstorfer, 2020), primary school (Tiznado-Aitken et al., 2021), secondary school (Easton and Ferrari, 2015; Moreno-Monroy et al.,

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2018), Further Education (Currie, 2007; Kenyon et al., 2003) and vocational training (Owen et al, 2012).

<sup>iii</sup> In the UK, response to the pandemic is a devolved issue. Therefore, English HEIs were subject to different regulations to those in Northern Ireland, Scotland and Wales; and pandemic data refer to the devolved nations. However, HE data are collected at the UK-level. Therefore, this paper refers to both England and the UK, depending on the dataset involved.

<sup>iv</sup> Calculation is % of [anonymised] students registered to attend the main campus who have the same term time and home postcode. Includes full time and part time students. I am grateful to Alex O'Mara, Student Experience and Insight Analyst at [anonymised] for providing these data.

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<b>Travel experience</b>	
<b>Journey duration</b>	Journey duration ranged from 30 minutes to 4 hours each way, with the majority of participants (8) travelling for between 1 and 2 hours.
<b>Mode use</b>	Participants used a range of modes: car (6), train (5) and bus (1). 3 car drivers used the park and ride. The university has no on-site parking, so all participants completed their journey on foot, walking for between 10 and 20 minutes.
<b>Residential location</b>	Participants travelled from a range of locations, representing the diversity of the spatial typology in the county: larger urban centres (6 participants); smaller rural (1) and coastal (3) settlements. 2 participants were from outside of the county.
<b>Travel distance</b>	Participants' travel distance to the University ranged from 10 miles to 115 miles, each way. 3 participants travelled 10-20 miles, 7 travelled 20-30 miles; 1 travelled 50-60 miles; and 1 travelled 115 miles.
<b>Student experience</b>	
<b>Programme of study</b>	Participants represented a range of programmes of study, including education (1), health (3), humanities (1), sciences (1) and social sciences (6).
<b>Level of study</b>	There was a range of Levels of study, including Foundation Year (1), Level 5 (2), Level 6 (7) and Level 7 (2).
<b>Student characteristics</b>	
<b>Demographics</b>	Demographic information on age, ethnicity, gender and household structure were not requested or recorded, because it was deemed to be sensitive information that could be used to identify participants. However, participants held a mix of these characteristics.
<b>Commuter student longevity</b>	The majority of participants (10) began their studies as commuter students; 2 initially moved to attend university, but had returned home within the last year.

Table 1. Sample composition.