



Student transitions to university in Wales: A mixed-method study of the enablers and barriers of first-year engagement

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ABSTRACT

This mixed methods study examines the transition to university and draws on questionnaire and focus group data to explore the experiences and perceptions of first-year Education students making the transition to Welsh universities. It focuses on their preparedness for and engagement with their studies. Findings identify a significant variation in students' experiences of post-16 educational provision and the academic, social and digital competencies they acquired before joining university. Students in the study experienced significant academic and social upheaval due to the pandemic. They had to adjust to new ways of learning, felt disconnected from others and missed out on key transition activities. The move to remote learning enhanced digital competencies for those with suitable devices and digital access, yet limited opportunities to develop competencies reliant on social interactions and experiential opportunities. We reconceptualise transition as a process that occurs over a longer timeframe than currently recognised and conclude with recommendations identified by students that smooth the university transition and support engagement with learning as they develop their academic identity and sense of belonging at university.

1.0. Introduction

The transition to university is a significant shift with greater independence and personal, social, and academic freedom for most students (Kyndt et al., 2017). Transitions are more than a move or transfer from one institutional setting to another, they also involve a change of status, or adoption of a new culture (Kyndt et al., 2017). Gale & Parker (2014) identify three broad conceptions of transition as induction, development, and becoming and Packer & Jones (2021, p. 3) make the point that transitions include "learning about identity and self, what a person can become and where that person is located socially and spatially". The transition period covers five recognisable phases (see Table 1) and is crucial to students, as it sets the foundation for successful study, their identity development and future achievement (Daniels & Brooker, 2014; Galy et al., 2011; Krause & Coates, 2008). However, for those entering Higher Education (HE), transition can entail significant emotional and social adjustment as it is a complex and demanding experience which encompasses personal management of financial, social, and academic responsibilities (Belfield et al., 2017; Young et al., 2020). For 'non-traditional' students, the transition to university makes these challenges more complex, due to their prior life, academic and professional

experiences; caring responsibilities; and deal with change (Gale & Parker, 2014; Gill, 2020).

The demands and complexity of the transition to HE are both academically and socially challenging (Scanlon et al., 2007; Shaver et al., 1985) and strategies designed to smooth this process such as e-mentoring, extended induction and school-university outreach have varying degrees of success (Ferreira, 2018; Richardson & Tate, 2012; Risquez & Sanchez-Garcia, 2012). Even with interventions in place, students are not always fully prepared and phrases such as the school-university "chasm" or "gap" (Briggs et al., 2012) are commonly used to describe this mismatch between knowledge, understanding, skills and attitudes.

COVID-19 exacerbated transition challenges. By 25 March 2020, COVID-19 was identified as a pandemic due to its global spread and in order to cut community transmission, schools, colleges and universities closed, disrupting the education of 80% of the world's student population (UNESCO, 2020). Consequently, first-year students missed out on pre-transition opportunities to meet and visit academics and higher education institutions ahead of enrolling at university and every aspect of their education was affected, with significant disruption to educational spaces and their learning experiences (McKay et al., 2021; Sanagavarapu

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Table 1
University transition stages.

| | |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-transition (months) | Deciding next steps: education, training or work. For HE, institution, location and programme can be dependent on grades, preferences and ties. |
| Transition (moment) | <i>Turning point: University place confirmed, often on exam results day, others may have unconditional offers if not transitioning directly from school/college.</i> |
| Orientation (weeks) | <i>Initial culture shock and period of adjustment from one educational phase, institution and context to another.</i> |
| First-year Induction (months) | <i>Students gain new academic knowledge and skills and develop their sense of belonging and academic identity.</i> |
| (Re)induction (years) | <i>Students continue to progress and secure academic knowledge, skills and confidence</i> |

& Abraham, 2020; Schütze & Bartyn, 2020).

This paper adds to the evidence base on the experiences and perceptions of first-year Education students making the transition to Welsh universities. It focuses on their preparedness for and engagement with their studies and provides recommendations to Higher Education Institutions (HEIs) as to how they can support student transitions to university in a post-pandemic world. This supports the Welsh Government's commitment to Equity and Inclusion and the wider aim of living in a just society.

This paper starts by introducing literature on student transitions (Briggs et al., 2012; Gale & Parker, 2014; Kyne & Thompson, 2020; Meehan & Howells, 2019; Packer & Jones, 2021), student engagement (Kuh, 2009; O'Shea, 2016; Trowler, 2010) and academic, social and digital engagement (Chong & Soo, 2021; Kahu & Nelson, 2018; Krause & Coates, 2008). It then presents some of the findings from our mixed-methods study exploring the experiences and perspectives of first-year Education students making the transition to universities in Wales before presenting and discussing research findings and setting out recommendations for practitioners responsible for supporting students before and during the transition to university. For the purpose of this study, 'Education students' are defined as those students enrolled on undergraduate courses associated with the study of Education in its broadest sense. For example, enrolment on a BA (Hons) Education Studies degree.

2.1. Literature review

The transition into HE has long been an area of concern (Tinto, 1987) and the COVID-19 pandemic compounded concerns about student engagement with education and their preparedness for the transition to university. Early transitional work attended to two key issues: academic and social integration (Tinto, 1987). More recent research recognises three transitional challenges: academic preparedness, identity, and student-staff relationships. Firstly, students are required to recognise, translate, and acquire skills, practices and knowledges that may be distinctively different from their previous educational experience (Aldous et al., 2014). Secondly, they feel the need to rapidly develop their identity and sense of being, belonging and becoming on joining university (Meehan & Howells, 2019). Finally, students want to form effective working relationships with academic staff to support their academic growth.

2.1. Academic knowledge, competences and identity

Student transitions to university are an increasingly important area of research (Briggs et al., 2012; Gale & Parker, 2014; Kyne & Thompson, 2020). This is because of HE's widening participation agenda (Aris-tovnik et al., 2020; Young et al., 2020) and more recently due to the deeply felt impacts of COVID-19 on all facets of education (Gill, 2021). In a study exploring the wellbeing and engagement of 60 first year education students in an Australian University during the pandemic,

McKay et al. (2021) found that the combined effect of a disrupted education, reduced contact with others and emotional upheaval left students distressed and ill-prepared for life at university. This disruption was particularly disorientating for non-traditional students who were less likely to arrive at university with the academic capital (accumulated knowledge, qualifications and other educational experiences) and competences (the skills, attitudes, and behaviours) needed to access and engage with their studies (Bourdieu, 1984; Gale & Parker, 2014). In similar research in an English context, Gill (2021) found that low self-efficacy, hesitancy to seek support and academic skills were key sources of anxiety for non-traditional students.

HEIs recognise that a lack of student preparedness and transition anxiety are wide-reaching problems (Gale & Parker, 2014) which require support measures before and during transition at the individual, departmental and organisational scale. The literature recognises that students who develop academic skills such as criticality, note taking, academic writing and referencing, and academic dispositions including self-efficacy, motivation, effective study habits and intellectual engagement during the development phase of transition are more likely to succeed (DiPerna & Elliot, 2000; Scanlon et al., 2007). Academic outreach activities such as open days, summer schools and guest lectures for sixth formers can help to de-mystify life at university and raise awareness of the academic knowledge and competences needed for success (Yorke & Thomas, 2003). Yet, during the pandemic, most outreach was cancelled, postponed, or moved online; this reduced transition awareness and increased the known problem of academic anxiety, disproportionately impacting non-traditional students (Blundell et al., 2020; Gill, 2021; McKay et al., 2021).

The transition to university is a life milestone linked to academic identity formation. However, online learning and identity formation were more challenging during the pandemic as students spent less time together on campus, in formal educational spaces, interacting and learning with their peers (Galy et al., 2011; Kyne & Thompson, 2020). Research shows that students prefer in-person learning (Bojovic et al., 2020), being physically together enables behavioural, emotional, and cognitive interactions with others and increases the likelihood that help is sought when needed (Trowler, 2010). Being present in formal educational spaces also supports students to secure knowledge of their new learning context, access, experience and understand academic culture and norms (Read et al., 2003; Scanlon et al., 2007) and build academic relationships with university staff and peers as they search for a sense of belonging (Meehan & Howells, 2019).

2.2. Being and belonging at university

Concerns related to the social side of transition have featured prominently within the relevant literature (Lawrence, 2001). Students starting university expect to make friends and there is a positive relationship between the quality of friendships for first year students and their social adjustment to university (Buote et al., 2007). Moreover, a positive social adjustment to university is regarded as a vital component for developing a successful learning environment (Maymon et al., 2019). Students that receive social support from peers, family and staff are more likely to adjust to the challenges associated with the transition to university (Maymon et al., 2019). However, a lack of connectedness with others, dissatisfaction and isolation/loneliness has all been reported to be at the forefront of students' minds during their first year at university (Scanlon et al., 2007). These anxieties result in many students dropping out during their first year of studies. Research by Bean (2005) identified that social factors and in particular students' social interactions with their peers influenced their choice whether to remain at university or leave.

The challenge of developing a sense of 'belonging' is likely to have been heightened by the onset of the COVID 19 pandemic and specifically the restrictions imposed on students and the move to online teaching (Lederer et al., 2021). According to recent research, the lack of

connection with fellow students and staff significantly impacted students' studies, self-discipline and sense of belonging (Raaper & Brown, 2020), it also affected their wellbeing, self-discipline and sense of belonging (McKay et al., 2021; Raaper & Brown, 2020). Students reported a significant sense of isolation and loneliness due to the lack of face-to-face interaction as a result of the pandemic (McKay et al., 2021). However, for some, the move to online learning and subsequent disconnect from campus was welcomed as it allowed their studies to be juggled with other commitments and responsibilities (McKay et al., 2021).

2.3. Digital access and student engagement

This period saw a seismic shift to digital adoption which played an important role in the transition process for students entering university. COVID-19 changed the nature of education as nationally imposed social distancing forced institutions to embrace technology and revert to emergency remote teaching to ensure curriculum transmission (Robinson & Rusznyak, 2020). This rapid adoption of online delivery by education providers neglected student's ability to access and navigate technology (Gamage & Perera, 2021). Subsequent studies found that these organisations did not get enough time to prepare strategically how technologies should be introduced and integrated into their existing setup (Chakraborty et al., 2021). Accessibility during this period also became a crucial factor for learning with successful course engagement depending on students' access to digital resources (Andrew et al., 2020); strong enough Wi-Fi connection (Cullinane & Montacute, 2020) along with student's personal digital skills and technological ability. Education during COVID-19 not only required knowledge and skills but also confidence in technology to engage with online learning and as Deshmukh (2020) reported the process to adapt to e-learning cannot be acquired quickly and can be rather tortuous.

These digital factors had a profound impact on the academic and social engagement of student transitions. In terms of the academic engagement of student transitions to university, technology changed how students engaged with teaching and learning, university staff and their peers. The public health situation saw the proliferation of online learning and in turn the decline of physical on campus teaching (Savage et al., 2020). Lack of motivation and negative emotions made it difficult for many students to focus and ultimately engage with online education (Patricia, 2020). Students described how they missed the help they received from peers in classrooms and access to resources, along with the ability to gain support from teachers who in some cases also lacked digital confidence (Bojovic et al., 2020; McKay et al., 2021). Excessive screen time also reportedly had health and well-being implications upon students and caused a range of anxieties and problems (Chakraborty et al., 2021). Although digital technology enabled students to continue their studies (Mishra et al., 2020) and provided flexibility for students to engage with course content and personalise learning to their own situation (Murphy, 2020) engagement, focus and motivation varied. Technology became an important tool but as clearly illustrated in the literature it could not replace face-to-face interactions (Miller, 2020).

3. Aims and research questions

This mixed-methods study, adopted an interpretive and inductive approach, explores first-year Education students' experiences and perspectives on their transition to university, and is of interest to HEIs as it directly impacts on student engagement, progress and achievement (Kuhfeld et al., 2020). More specifically, the study aims to answer the following research questions: How academically, socially and digitally prepared for and engaged with their studies are first-year Education students? And, how can educators and institutions better support first-year Education students in the transition to university in a post-pandemic world?

4. Methodology

4.1. Participants

The participants were 90 first-year students enrolled on Education degree courses in Welsh universities and were recruited through purposive, voluntary sampling via an email call with the invitation and link to the online questionnaire shared by Education programme leads working in the seven Welsh HEIs. Most participants were recruited from a Welsh HEI in South Wales (54), with a Welsh HEI based in North Wales recruiting the second largest number of participants (25). The remainder of participants were recruited from other HEIs across Wales. The online questionnaire was open for four months and 90 students completed it between 1 December 2021 and 30 March 2022. Twenty students left their details and were invited to join a focus group to capture multiple realities of the university transition in more depth, six focus groups with 18 participants took place during the four-month timeframe. The majority of participants in the focus groups were from one Welsh HEI in South Wales. It is important to note that Wales adopted a conservative approach to lockdowns. Moreover, that data was collected at a time when students experienced hybrid learning with a return to face-to-face sessions in between lockdowns.

4.2. Data collection

Prior to data collection, ethical approval was granted. The credibility of evidence was supported by using two complementary data collection tools (Denscombe, 2014). Questionnaires were designed with 44 Likert scale student engagement items, adapted from Krause & Coates' (2008) "The First-Year Experience Questionnaire" (FYEQ). We excluded transition engagement and beyond-class engagement scale items as COVID-19 was still affecting students time at university, and teaching and learning remained online. The first part of the questionnaire included demographic and context questions about the participants. The following three sections of the questionnaire focused on the three student engagement scales: academic, social and digital engagement. The academic engagement section of the questionnaire included 14 items from the Academic Engagement Scale (AES) and Intellectual Engagement Scale (IES) item. The next part focused on social engagement and comprised of 17 items from the Peer Engagement Scale (PES) and Student-Staff Engagement Scale (SES) items. The last section on online engagement included 13 items from the Online Engagement Scale (OES).

This provided a baseline understanding of students' experiences prior to and post university transition and broader contextual data to support the rich descriptions generated through the focus group discussions. Following each set of scale items in the questionnaire, participants were asked several open-ended questions, therefore increasing the credibility of the research and a more complete picture of the phenomenon; these are not reported in this paper (Creswell & Plano Clark, 2011; Denscombe, 2014). The final section of the questionnaire asked participants to write their name and institutional email address if they agreed to being contacted with a focus group invitation. The survey was developed and distributed using Qualtrics Survey Software.

Each focus group consisted of three to five participants and were facilitated by the researchers not leading the programmes on which students were enrolled. The intention was to minimise power relations in the researcher-researched relationship. Focus groups adopted a semi-structured approach, took place via the online video conferencing tool Zoom and lasted up to one hour to collect more detailed evidence on key themes. Audio recordings were transcribed orthographically, and pseudonyms were used to protect the identity of participants in the study and publications (Wilkinson, 2015).

4.3. Data analysis

Data generated from the questionnaire were exported, processed and analysed using IBM SPSS to gain an insight on student engagement. Analysis of focus group data was deductive, drawing on and reflecting on the literature and our own professional experiences as education lecturers. Data analysis was guided by the subjective six-stage process of Reflexive Thematic Analysis (RTA) articulated by Braun & Clarke (2019). These stages included data familiarisation, coding the data set, generation of initial themes, reviewing themes, defining and naming themes, and writing up the analytic narrative in the context of the literature. Units of meaning in each focus group transcript were highlighted, coded and organised in order to generate themes related to academic, social and digital preparation and competences.

4.4. Limitations

The opportunity to collect a large dataset was curtailed due to university holidays coinciding with the data collection period. Also, students reported survey fatigue due to the regular use of online questionnaires during the pandemic. Information from Qualtrix showed that 132 students completed the first page of the survey, but subsequent page completion rates were far lower (87 to 90). The relatively small sample suggests that questionnaire findings cannot be generalised to other contexts. Yet our findings were comparable to data collected previously and the latent variables through the Likert scales were found to be dependable (Chong & Soo, 2021; Krause & Coates, 2008). Triangulation of quantitative and qualitative data from the questionnaire and focus groups ensured that our findings were valid, and as the research team are situated in education departments in HEIs, our insider's positionality (Hammersley, 1993) gives us prior knowledge of the group being researched and the reality of student transitions.

5. Findings

5.1. Student engagement scale

The Cronbach's alpha coefficient of reliability test (α) was conducted to ensure the reliability of the five FYEQ engagement scales. The alpha values ranged between 0.74 and 0.84 (see Table 2), thus the scales in the instrument surpassed the acceptance level of 0.7 and had acceptable reliability (Taber, 2018). The results for the mean values for the five scales presented in Table 2 are arranged in a descending order and show that mean values are above average for a five-point Likert scale. The student-staff engagement scale comprising of eight items obtained the highest mean value with students agreeing that staff were approachable, knowledgeable and available to provide support. The academic engagement scale comprising nine items scored the lowest mean value, with students agreeing that completing all their assignments and rarely skipping classes were important, but that they were less likely to visit the library for books or study on the weekend.

Descriptive statistics for engagement items provided a wide range of mean and standard deviation values. On review of the 44 engagement items in this study, the greatest importance was attributed to items

Table 2

Descriptive statistics and measurement instrument reliability for the engagement qualities.

| Engagement qualities | mean | no items | Cronbach Alpha | rank order |
|-------------------------------|------|----------|----------------|------------|
| Student-staff engagement (SE) | 3.90 | 8 | 0.81 | 1 |
| Intellectual engagement (IE) | 3.67 | 5 | 0.75 | 2 |
| Peer engagement (PE) | 3.61 | 9 | 0.84 | 3 |
| Online engagement (OE) | 3.60 | 13 | 0.82 | 4 |
| Academic engagement (AE) | 3.36 | 9 | 0.74 | 5 |

related to completing assignments, lecturers knowing their name, the internet for study support, email as a tool to contact lecturers and it being best not to skip class. Whereas, student engagement was weakly linked to online rather than face-to-face classes, weekend study, borrowing course notes from peers and books from the university library and email to contact friends on the course. Arguably, the results from the top five items with a strong level of student engagement and the top five items with the weakest student engagement could be used to determine the profile of the first-year student. When asked directly about their preparedness for university, survey data indicated that 74%, 78% and 61% of respondents, respectively, felt that they were prepared or very prepared for their academic, social and digital transition to university.

5.2. Barriers and enablers of academic preparation and competences

When supported by their teachers and families, students can develop their academic capital and make informed decisions about their next step in their education. However, students felt that their pre-transition preparation was not always well considered as teachers prioritise covering specification content and examination results over transition activities. Students recognised that pandemic social distancing measures limited their access to academics, universities and outreach activities. For example, none of the students in the focus groups had attended on-campus university open days, this meant that students transitioning to university in 2020 and 2021 were far less "transition aware" (Ferreira, 2018, p.373) than in pre-pandemic times. A common theme from students was that the pandemic assessments including Teacher Assessed Grades provided no formal opportunity to prove themselves academically; this affected their confidence, self-worth and learner identity. The situation was far worse for home learners, as independent candidates did not have the evidence to be awarded qualifications or gain conditional university places.

When discussing the diverse routes into university taken by their friends, students raised concerns that their lecturers did little with this information to support students. The lack of acknowledgement of prior experience, and therefore students' academic and digital literacy, meant that some students, especially those from non-traditional backgrounds, experienced "a bumpy ride" (Iris). For some students, induction was an overload of information, campus felt very unfamiliar and expectations around their first-year academic experience remained unmet. Students felt far better supported after arriving at university. They appreciated friendly and empathetic administrative staff and academic staff were valued for the extra mile taken to direct students towards information and resources and provide academic support. Chloe and Iris said how 'lecturers were always there at the end of an email' and 'they'll be happy to help no matter what.'

In terms of student experience, focus group participants discussed a deficit of educational opportunities during the pandemic as teaching occurred online or from 'behind the line' in school classrooms. This disrupted usual pedagogical practices and resulted in more direct instruction and delivery of knowledge. Students felt frustrated about missed opportunities in sixth form and this frustration continued at university as lectures and large events stayed online in 2021. Students wanted the full university experience: "what am I paying £9000 for if there isn't much in person learning" (Stephen). Students said that in-person learning was more interactive and motivating, as more people contributed to in-person sessions. Further, they felt that lecturers were more reactive and helpful when they looked confused or distressed in class, this was not the same online. Students also valued going to campus, as they felt more focused and "fully present". They said it was better to study in formal learning spaces such as the library and seminar rooms or third spaces such as university cafes rather than informal "home" spaces used during lockdown learning including personal spaces (i.e. their bedroom) or shared spaces (i.e. the lounge or kitchen) where interruptions or distractions from family members reduced their ability to focus. As a significant proportion of teaching was online, students

talked about missing out on spontaneous on-campus interactions such as having a coffee with their friends or visiting the library, this mirrors findings by McKay et al. (2021). However, with the high cost of university, the reality of having condensed university hours, courses designed to support effective learning and the flexibility of when to study, students said that they were able to maintain a study-work-life balance and achieve financial security - all while gaining a degree qualification.

5.3. Barriers and enablers to being and belonging at university

Focus group participants acknowledged the significant impact COVID-19 had on their social interactions prior to transition. Several periods of lockdown impacted their social confidence and left the majority feeling isolated from friends and family. Chloe highlighted that “at home quite a lot and then having to be around lots of people was a bit daunting”. Keighley expressed feeling “socially anxious” and it took participants time to regain their confidence after lockdowns eased.

At university, participants were overwhelmingly in favour of opportunities to socialise with other students. They viewed this as an important part of making connections with other students, but also a significant part of developing their sense of being and belonging. Pat commented “I like social interaction; I don’t thrive in a space where I can’t see people”. Importantly too, participants recognised the importance of face-to-face interactions in developing connections with others. Chloe commented “if we had more face-to-face interactions, we may be a bit closer...our socialising might be better”. A common theme during the focus group interviews was the concept of making up for lost time and when staff provided face-to-face teaching sessions, they thrived. Keighley noted, “that’s where my favourite experiences from uni so far just getting merged with different people, it was so fun, like from that I made more friends”.

The importance placed on peer support was a significant finding from the focus group interviews. Participants valued the support from peers prior to university, and importantly too, at university. Participants regularly reflected on the COVID-19 pandemic as a shared experience which brought a sense of togetherness during their time at university. They valued the ability to be able to reach out to their peers during evenings and weekends for support. Lauren said: “I think it’s also you know when you’ve got someone to text if you need, once we leave university, you’re not by yourself”. Students also recognised the importance group chats on applications such as WhatsApp as a source of peer support. They reflected on the importance of these opportunities for group support systems. For example, Sarah noted “our own group chat, I think we would have all had mental breakdowns by now... we’ve got that support system; we all help each other”. A common theme from the focus group interviews was the concept of a lucky dip in relation to seminar groupings for students. Students felt lucky to have a positive group dynamic and this in turn led to a positive peer support system during their first year of study. For example, Lauren noted, “we’ve been lucky really in this tutor group we are in because we all get on and we all kind of have each other’s back...that’s really, really nice to have”.

5.4. Barriers and enablers of digital access and student engagement

Focus group participants acknowledged the necessity of engaging with technology during this turbulent period of public health to access learning and to enable the continuation of curriculum transmission. Online learning was perceived to enable more flexible engagement with course content, from any location, using a range of digital devices which were welcomed by those students with additional work and/or family commitments. Students shared how they adapted some of the affordances of digital technology to fit around their multi-varied lives, such as listening to recorded lectures at faster speeds or rewinding content to go over things that needed further clarification.

However, although student engagement with online learning was

recognised as a fundamental requirement during this time, students also reported a range of barriers associated with online learning such digital accessibility, lack of interactivity and an overall feeling of dissatisfaction for a cybernated learning realm. Participants described how the rapid adoption of online learning by institutions left them scrambling for the relevant equipment, the digital competency to navigate these systems and importantly the broadband connectivity to be able to engage with course content. Students shared how they had to beg and borrow; from family members or in some cases via their student loan to access the applicable digital equipment. One student noted how she “had to get rid of my monster of a laptop as it couldn’t hold a ‘Teams’ call” (Chloe). Problems with accessing digital resources was a consistent theme identified in the data with participants also sharing how technological devices were often shared with family members who were also home schooling, studying or working from home during periods of social distancing. With families forced to continue their lives from the confines of their home, additional issues arose such as synchronous access to broadband, download speeds and the cost of data. A secure broadband connection became the lifeblood for online learning for university students and without a stable Wi-Fi flow could lead to the haemorrhaging of knowledge.

A myriad of comments related to the negative aspects of online engagement emerged from the data with several students stating their disdain for online sessions which were described as “a waste of time” and “a bit pointless”, with Tilly explicitly stating “I hate online sessions”. Reasons for the opposition to online learning included the lack of interactivity with students describing how they abstained from turning web cameras and microphones on which often resulted in lengthy didactic teaching from the lecturer to fill silent voids. With the ability to turn cameras off during online sessions students noted how they could often “hide” or “engage in other activities” (Olly) whilst the lecture was taking place. Presence, motivation and focus during online sessions were often described as different in contrast to on campus sessions which students were more motivated to attend and participate in session activities.

Apathetic feelings towards online learning were also accompanied by feelings of frustration with frequent incidences of technological issues which led to sessions “dropping out” (Sarah) or in some cases being unable to access the session at all. A sense of continued fortitude and resilience was required for engagement with online sessions which were contrasted to on campus sessions which were perceived as “easier” (Tilly). Excessive screen time led to feelings of exhaustion, sedentary isolation and the inability to focus for long periods which impacted student well-being.

The focus group findings suggested that an important factor to engaging with online learning related to student’s confidence and competence with using technology and digital resources. The student sample possessed an eclectic range of digital skills. Some students described how their confidence with using technology helped them to adapt quickly to using video conferencing software and to be able to navigate university’s virtual learning environments (VLE). However, those students that were not as digitally literate did find engaging with the VLE difficult and in some cases, this was perceived as a barrier to learning. One participant added that ‘I just didn’t have a clue’ (Chloe) in reference to using video conferencing and the university VLE platform. Other students mentioned their confidence with using mobile devices and social media but required support in using Office applications such as PowerPoint and Excel. Those that were not as digitally literate did go on to describe the digital support offered by universities which assisted their digital engagement in the form of guidance videos, digital forums, and emailed responses from lecturing staff but not all students were aware of this digital support.

6. Discussion

The work of Krause & Coates (2008) drew attention to the

multifaceted nature of student engagement from an Australian perspective and this study provides a Welsh perspective amidst the COVID-19 pandemic. Our first research question asked how academically prepared and engaged were first-year Education students. COVID-19 was a significant pre-transition disruptor affecting every facet of education including academic outreach, university open days and post 16 teaching, learning and assessment practices. Thus, the work by schools and colleges to reduce the skills gap (Richardson & Tate, 2012), build bridges (Briggs et al., 2012) and improve student preparedness for higher education (Kraus & Coates, 2008) became less of a priority than the core aspects of education such as the delivery of knowledge and assessment. Yet, our findings suggest that three quarters of students in the study felt academically prepared for the transition to university even though they all experienced transition shock; the magnitude of which varied due to their prior experiences and academic competences. Our survey and focus group data spotlighted several aspects of the university transition. For example, we recognised the diversity of students, their pre-university experiences and routes into HE, and we agree with Kyne & Thompson (2020) who recommended that multiple strategies by schools, colleges and universities are needed to support transition.

Shifting the focus from pre-transition experiences to induction, development and becoming, thus aligning with Gale & Parker (2014) typology of student transition, our findings recognised that the university transition takes longer than is currently conceptualised, as it takes time for students to develop a sense of belonging and feel recognised as full members of their university. Consequently, we recognise that (re) induction activities should be incorporated into first year and subsequent years of every university programme, this is particularly important for students who have missed out on academic opportunities and milestones as a result of COVID-19.

Findings from this study indicate that students want in-person rather than remote learning for a successful transition. This preference is increasingly being reported in studies conducted during the pandemic in which students described on campus sessions as more interactive, supportive, engaging and worthwhile (Aristovnik et al., 2020; Kyne & Thompson, 2020; Lederer et al., 2021; McKay et al., 2021). Given the disruption to education and narrowing of pedagogical practices due to pandemic remote teaching, “behind the line” instruction and the pressure of “lost learning” time in the classroom (UNESCO, 2020), students recognise that they have missed opportunities for groupwork, fieldwork, debates and other educational experiences. As highlighted in Table 3, student recommendations include a return to campus, reduced remote learning and experiential learning opportunities to be prioritised over the next few academic years.

In response to the second research question asking how socially prepared and engaged first-year Education students were during COVID-19, our findings suggest that the pandemic had a negative impact on students’ pre-transition. Connecting with others is a crucial part of the transition to university (Ahn & Davies, 2020; Christie et al., 2008). However, due to the lack of face-to-face teaching and frequency of lockdowns, students had minimal opportunities to meet with others and found it difficult to deal with feelings of isolation and loneliness. This in turn had an adverse effect on their confidence prior to the transition. This finding resonates with work by McKay et al. (2021) who found that the introduction of the COVID-19 pandemic meant that students felt isolated from their friends which significantly impacted their wellbeing.

This study found that induction week is crucial for students to establish friendships at university. Students in this study valued face-to-face opportunities to meet others during their first few weeks at university and this helped them feel more prepared for university. These crucial on-campus activities had a significant impact on their sense of being and belonging, and there was a real sense of togetherness among the students. Moreover, students valued the continued attempt from staff to timetable face-to-face, on campus sessions throughout the academic year. Interestingly, some participants in McKay et al. (2021) study welcomed the introduction of online learning and lack of

Table 3
Student transitions: recommendations for schools, colleges and universities.

| Stage | Academic | Social |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-transition <i>Deciding next steps: education, training or work. For HE, institution, location and programme can be dependent on grades, preferences and ties.</i> | <ul style="list-style-type: none"> • Subject-specific career lessons for sixth formers • Project work including research and EPQ qualifications in schools and colleges • University outreach including subject-specific guest lectures for sixth formers • Open days at university (in-person and virtual) • Subject ambassador visits to sixth forms • Summer residential in HEIs for sixth formers | <ul style="list-style-type: none"> • Diverse range of informal pre-transition events on campus designed to familiarise students with life at university • Undergraduate ambassador Q&A sessions • Opportunities to meet and socialise with students planning to take specific courses • Social events advertised way in advance |
| Transition <i>Turning point: University place confirmed, for many this is on exam results day, others may have an unconditional offer if not transitioning directly from school or college.</i> | <ul style="list-style-type: none"> • Send regular email updates from the School of Education • Line up welcome emails from core staff and university services • Design transition tasks familiarising students with the VLE to develop digital skills as well as course and institutional knowledge • Check that students have access to their own laptop with a working camera. Identify and fund digital tech for all students | <ul style="list-style-type: none"> • Offer holder open days • Provide a ‘typical’ timetable to help planning for childcare, work commitments etc. • Provide information about where teaching takes place so informed decisions about accommodation etc. can be made • Informal transition events on campus • Virtual events for students to meet each other and chat on university ‘Teams’ sites |
| Orientation (weeks) <i>Initial culture shock and period of adjustment from one educational phase, institution and context to another.</i> | <ul style="list-style-type: none"> • In-person campus orientation with tutors • Physical and digital library induction • Basic digital training to ensure all students have access to the VLE including essential ‘How to’ pre-recorded presentations on finding course materials, resources and HEI services • Have students sign up for IT Certification course i.e., Microsoft • Identify late course starters and ensure they receive signposting to resources, support, advice, services | <ul style="list-style-type: none"> • Inclusive welcome week events • Prepare team building activities • SU campus tour of social spaces • Coffee breaks together • Regular organised lunch events • Organised meetings in different social spaces on campus |
| First-year Induction (months) <i>Students gain new academic knowledge and skills and start to develop their sense of belonging and academic identity.</i> | <ul style="list-style-type: none"> • Full teaching days on campus with plenty of time for social interaction over breaks • Set up a range of academic groups: book clubs, special interest or project groups • Model good study habits to manage competing demands and provide structure to the week | <ul style="list-style-type: none"> • Groupwork designed so students meet and talk to many people in their cohort • Shared communication i.e. What’s App groups, ensure late starters are included in these groups • Social events for students to meet with other year groups for informal learning about what happens in the next |

(continued on next page)

Table 3 (continued)

| Stage | Academic | Social |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Continuing to Year Two <i>Students continue to progress and secure academic knowledge, skills and confidence.</i> | <ul style="list-style-type: none"> Help students to navigate well-designed course VLEs during the first seminars Active use of forums, discussion boards and interactive online learning spaces Advanced 'How to' pre-recorded presentations Departments share academic events on their website and social media Self-evaluation of digital competences and training provided for gaps identified | <ul style="list-style-type: none"> year i.e., placements, dissertation projects Encourage student voice by establishing monthly meetings with student reps Informal socialising opportunities with others outside of structured timetabled induction sessions |
| | <ul style="list-style-type: none"> Re-induction events Level 5 students share their experiences of transition at level 4 sessions Share Level 5 student recordings of 'transition to university survival guides' for the new cohorts Highlight the importance of in-person rather than on-line teaching Add opportunities to develop key skills i.e., group work, presentations, fieldwork and students' digital literacy Model good practice i.e., writing retreats | <ul style="list-style-type: none"> Plan additional student social events Add additional residential or all-day events Continued support from tutors, guidance on student transition and adapting to change Highlight importance of in-person sessions to support socialisation Continue to provide whole cohort social opportunities as opposed to small seminar group experiences |

connection with others. However, this was not a feature of the present study.

Finally, this study bought into sharp focus the importance of peer support in preparing students for the social upheaval of the transition to university. Effective peer support has always been an important part of the transition to university (Baker & Siryk, 1999). However, this study emphasises the different methods students used to support each other. Students effectively utilised applications such as WhatsApp to communicate with each other, they also connected and played games together on their PlayStation and Xbox consoles.

The COVID-19 pandemic disrupted students' ability to socialise with their friends during the transition to university. The period prior to transition negatively impacted students' ability to connect with others, and therefore significantly impacted their confidence. At university, infrequent opportunities to connect with others in person aided their feelings of being and belonging. However, these students have missed out on the normal university experience. Therefore, universities should provide opportunities for students to re-connect with their peers through enhanced face-to-face teaching and a robust re-induction process (as highlighted in Table 3).

The third research question asked how digitally prepared and engaged were first-year Education students. Our research found that students' feelings of digital preparedness and engagement varied during the COVID-19 pandemic which was influenced by a spectrum of factors. Firstly, this study echoed some of the findings from similar studies in which engagement with technology during this period became

obligatory to access curriculum content (Robinson & Rusznyak, 2020). Additionally, this study highlighted some of the perceived opportunities created by the affordances of technology such as a flexible and more personalised approach to learning which was recognised in comparable studies (Mishra et al., 2020; Murphy, 2020).

Nevertheless, many of the barriers related to digital engagement were discussed in further detail and in more frequency than the perceived enablers of digital engagement. This study highlighted the growing apathy of engaging with online learning citing a range of reasons such as the inability to focus and ability to "switch off", the didactic and unmotivating delivery of pedagogy, the technical problems, and conflicting distractions presented whilst studying online at home. These findings aligned with wider literature which noted that the negative emotions and stifled enthusiasm associated with predominantly digitally based learning ultimately made it difficult to engage with online education (Patricia, 2020). This study accentuated the issues associated with extended exposure to screens that were detrimental to student well-being these concerns corresponded with studies conducted with similar student samples (Chakraborty et al., 2021).

This study highlighted many disparities, divides and disadvantages associated with digital education and exacerbated digital inequality felt within society (Selwyn & Jandric, 2020). It also emphasized that engagement with learning was also determined by digital accessibility during this period. Students shared the challenges associated with accessing the relevant digital resources which were often outdated and needed to be replaced or highly desirable communal devices and the cause of interfamily conflict as they all worked and learnt from home. Access to broadband also became an essential currency for learning with students experiencing a range of experiences in relation to the strength of their Wi-Fi connection. Digital access to technological resources and broadband became a universal imperative in education across the globe which was also conceded in other studies (Andrew et al., 2020).

A final influencing factor upon students' feelings towards being digitally prepared and engaged was influenced by their own digital literacy. Students that were not confident in navigating VLE's or learning new software applications found this aspect of the transition challenging and quite stressful which aligns with wider literature which found that adapting to university-based learning environments challenging (Chong & Soo, 2021).

6.1. Recommendations

Informed by our questionnaire and focus group data, along with reflections by the research team, recommendations for HEIs on student transitions are presented in Table 3. Students recalled so many educational opportunities missed since March 2020, and although some are framed as lost learning, we optimistically see the possibility for gained learning to occur while students are still enrolled at university. It is important that institutions, departments and staff are aware of students' knowledge and skills gaps and staff are supported to arrange catch-up opportunities for a range of academic activities including fieldwork, group work, whole cohort events, presentations, debates and invited speakers and visits. In terms of the social aspects of transition, participants were anxious to get back to campus, to go out socialising and were appreciative of everyday and mundane opportunities such as meeting for a coffee as these were the opportunities denied to them during the pandemic. Students recommended that HEIs schedule more social events for pre-university, (re)induction at university, to encourage students to mix and talk to their wider cohort. Although the focus on the study was fixed upon a narrow geographic region, the findings and subsequent recommendations have relevance for HEI's in national and international contexts

7. Conclusion

Our findings contribute to the existing research on student

transitions and engagement at university. Students in this study experienced significant academic and social upheaval due to the pandemic. They had to adjust to new ways of learning, felt disconnected from others and missed out on key transition activities. Students struggled to maintain friendships prior to transition, and due to the frequency of lockdowns and lack of face-to-face contact, struggled to establish friendships at university. Although, the ‘digital turn’ in education was an emergency response to the COVID-19 pandemic, remote learning provided students with the opportunity to use many digital tools and develop their digital competences, even though they missed out on in-person teaching. Many students faced difficulties in connecting to the internet, their internet speed and finding suitable spaces to study and at times, this had a negative impact on their learning and wellbeing. Engagement and learning in academic spaces on campus, with peers and academics is a highly valued aspect of the university experience.

We argue that besides a “return to normal” with students back on campus for lectures, seminars and workshops, HEIs are well placed to provide re-induction activities for all students and further academic and social opportunities to compensate for lost learning, non-experiences and milestones missed since the start of the COVID-19 pandemic. Schools, colleges and universities would do well to take up the recommendations we set out in Table 3, to smooth the transition to university and support students’ engagement with learning as they develop their academic identity and sense of belonging at university. Overall, we conclude that an extended concept of transition would help institutions and educators recognise the importance of transition activities to develop academic capital before, during and after the moment of transition from one education stage to the next. This mixed-methods study might inspire further research to understanding how students experience the transition to university and engage with their learning in other contexts. In addition, we would encourage research that tracks the students whose education has been impacted by COVID-19 to better understand the long-term impact of COVID 19 on university transitions and the enablers and barriers to student engagement, particularly for non-traditional students.

Additional information

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Data is stored at the lead institution and permission for Welsh Government is required to share it

Declaration of Competing Interest

No potential conflict of interest was reported by the authors.

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