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Exploring the changing modes of learning and teaching in campus-based curricula during and post- Covid-19

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Abstract

The rise in technology-rich learning environments is reflective of a global trend in higher education (HE), recently accelerated because of necessary digital teaching and assessment practices embraced during the Covid-19 pandemic. This qualitative study facilitated through focus groups and an interview explores the teaching and learning experiences of tertiary level students in the Covid-19 era.

Data from 24 students based within a UK Higher Education Institution highlights how an expanded digital environment can optimise conditions for some students to independently practise and apply what they are learning at their own pace. Digitally enhanced opportunities to interact with teaching staff and learning resources also increased the options for these students to experience themselves as competent members of the HE community. This was particularly relevant for first-year students new to the processes and practices of tertiary education. In contrast, third year students with more experience of HE appeared less reliant on the provision of online learning resources. Participants also identified some potential problems associated with the enhanced flexibility of online teaching and learning resources in relation to students' ability to be self-regulated.

This paper rationalises the need for educators and educational and learning developers who teach and undertake scholarship in teaching and learning to consider the sociocultural context of the student and their learning environment when designing teaching activities and curricula. The data presented here highlight the need for a clearly defined framework to underpin the integration of digital technologies with on-campus activities.

Keywords: Covid-19; blended learning; student experience; self-regulation; digital learning.

Introduction

Integrating campus-based teaching sessions with on- and off-site digital learning activities is increasingly adopted if not assumed for most Higher Education Institutions (HEIs) in the United Kingdom (UK) post-Covid-19 (Office for Students (OfS), 2022). Following the rapid upskilling in learning technologies by higher education (HE) teaching staff due to Covid-19 related campus closures, students now enrol into a revised university experience with digital technologies firmly embedded in most programmes. The dominant application of digital technologies in campus-based HEIs post Covid-19 revolves around the integration of digital devices and multimedia within face-to-face settings, online synchronous and asynchronous lecture delivery, and the provision of lecture recordings (Mali and Lim, 2021). Face-to-face sessions are enhanced using audio, images, videos, and online polling activities with formative learning opportunities supported outside the classroom through provision of automated quizzes, simulated, immersive activities, podcasts, and collaborative tools (Eggers, Oostdam and Voogt, 2021).

Beckingham et al.'s 'Modes of learning in higher education' eloquently summarises the various pedagogic models HEIs can adopt (2021). These include: In-person where teaching is predominantly on campus, Hybrid where students have some synchronous classes delivered live in-person and other classes attended online, and Distance where student learning is predominantly physically removed from campus. Since the pandemic most UK campus-based HEIs have adopted a hybrid approach, which can be interpreted as Blended Learning (BL). Various definitions and interpretations of what BL represents as a pedagogical learning approach have been postulated (Beetham and MacNeill, 2023; OfS, 2023), but in general it is considered a model through which students learn through

synchronous and asynchronous methods, supported by a range of digital learning technologies (Beckingham et al. 2021). Beetham and MacNeill's report 'Beyond blended' offers clear definitions and terminologies to address this (2023). We adopt the same terminology here and modes of learning occur through synchronous live delivery (either online or in place), or asynchronously, which refers to learning occurring in a time and place of the student's own choosing and usually involves online resources in some role (Beetham and MacNeill, 2023).

As a consequence of the adoption of BL approaches, currently in 2023, students attending campus-based institutions have significantly enhanced flexibility to manage their study where and how they choose (Quality Assurance Agency (QAA) for Higher Education, 2023). From the perspective of inclusion and accessibility, incorporating different modes of learning into tertiary level programmes empowers an increasingly diverse student population to personalise their learning trajectories outside the classroom, monitor their progression towards learning outcomes, and track what they need to do to improve (Kumi-Yeboah et al., 2020). However, the challenge to understand what blend of learning and teaching modes will support students' learning still persists. Within a UK HEI context, this paper contributes to this discussion in exploring the experiences of students engaged in BL models of learning across three health-based programmes located on a single campus.

A key consideration for the learning development community is to establish common interpretations of terms to describe the various modes of learning associated with BL. Beetham and MacNeil (2023) offer clear definitions and terminologies to address this. We adopt the same terminology here: thus modes of learning occur through synchronous live delivery (either online or in place) or asynchronously. Asynchronous (self-directed) learning occurs either online or in a place of the student's own choosing and usually involves online resources in some role (Beetham and MacNeil, 2023).

Early analysis by the OfS (2022) of revised campus-based curricula incorporating digital technologies provided evidence of poor design, with substandard online teaching practice and online resources. In this report, difficulties incorporating significant amounts of online content with a full-time campus-based timetable were highlighted. While many students were satisfied with BL opportunities, the report does highlight pockets of dissatisfaction, for example, poor online teaching practice and poor online learning resources, emphasising

significant scope for improvement (OfS, 2022). This is substantiated by a recent Higher Education Policy Institute (HEPI) policy report (Brassington, 2022) where 32% of students documented receiving poor or very poor value for money in the 2021-2022 academic year, citing 'teaching quality' as one of the main reasons. Additional evidence of dissatisfaction is demonstrated by current ongoing group action from almost 1000 students against University College London citing inadequate teaching during the Covid-19 pandemic (Weale, 2023). A recent Joint Information Systems Committee (JISC) commissioned report conducted by Killen and Didymus (2022) comments that student perceptions of how engaging and motivating their learning resources were are low (43%) with only 28% of students feeling part of an educational community.

During the Covid-19 lockdown, the traditional ways in which students connected to peers and their institutions were disrupted, and feelings of belonging associated with higher levels of academic achievement and retainment were significantly complicated (Fruehwirth, Biswas and Perreira, 2021). Excellent reviews by Bartolic et al. (2022) and Universities UK (2023) highlighted common themes of isolation, attention problems, difficulty achieving learning outcomes, and dropout during the periods of remote teaching. Chen and Lucock (2022) worryingly highlight how at one UK institution over 50% of the undergraduate (UG) student cohort were likely to have experienced clinically significant levels of depression and/or anxiety.

There is further unease that alongside reduced student engagement, courses designed without appropriate consideration of the pedagogy underpinning their delivery may adopt an inappropriate balance between synchronous (live online/live in place) learning and self-directed asynchronous learning. This in turn can lead to course overload inadvertently hindering students' academic performance (OfS, 2022; Beetham and MacNeil, 2023). Prior to the Covid-19 pandemic, provision of lecture recordings was highlighted as a contributory factor in reduced campus attendance (Kottasz, 2005). In more recent years, online lecture recordings have been implicated in heightened absenteeism on campus in comparison to pre-pandemic rates (Williams, 2022). This is consistent with results from the UK Engagement Survey (UKES) (Holden, 2023) where students reported that less of their learning took place with others. This is in contrast to their experiences previous to the pandemic (47% in 2022 in comparison to 56% in 2016, 2017 and 2018). Holden (2023) qualifies the data highlighting how in 2022, students were still required to wear facemasks and self-isolate if they tested positive for Covid-19. Difficulty comparing data pre- and post-

Covid-19 is further compounded by the established consequences of 'long Covid' (UKHSA, 2022) and a subsequent cost-of-living crisis.

There are enormous benefits to the student-centred approach afforded by the adoption of digital technologies (Haleem et al., 2022), and from a students' rights perspective, students must be involved in the future design of their educational experience. Thus, the central questions this study asks are:

1. What aspects of the student experience during the Covid-19 era should shape the future of BL approaches in HE?
2. What impact (if any) do BL approaches to teaching and assessment have on students' sense of belonging?

Research methods

The study was approved by the Queen's University Belfast Faculty of Medicine, Health and Life Sciences Research Ethics Committee and took place at a research-intensive UK university with a strong campus-centric teaching model. Interviews and focus groups were conducted via the video conferencing system Microsoft Teams from Spring 2021 to Spring 2022 amongst 24 full time UG students from first to third year across three (A-C) Health Professional degree programmes. These interviews and focus groups reflected on participant experience of the Academic Years from 2019-2020, 2020-2021 and 2021-2022. Data was collected across April 2021-February 2022.

Study context

The teaching and learning timepoints considered in this study reflect those reviewed within QAA's Student Engagement Guidelines introduced in response to Covid-19 (QAA, 2023). These include (i) traditional campus-based teaching prior to societal lockdown, (ii) emergency remote practices in response to enforced campus closures, and (iii) the retention and integration of digital technologies in support of teaching and learning following the reopening of the institution. Students who volunteered to take part in the study had collective experience of at least one of the main approaches to teaching and

learning delivery offered by the institution across the time frames listed. Table 1 provides a summary of these approaches.

Table 1. Approaches to teaching and learning across various timepoints.

Academic Year	Time Frame	Style of Teaching and Learning
2019-2020 (before outbreak of Covid-19)	September 2019 – March 2020	Predominant **Campus-based Curriculum** with all teaching and majority of assessment taking place on campus.
2019-2021 (peak Covid-19 outbreak) *	March – June 2020; September 2020 – June 2021	**Online Delivery** of curriculum consisting of synchronous and asynchronous teaching and assessment methods. Widescale introduction of remote assessment and open book exams.
2021-2022 (apparent decline of Covid-19)	September 2021 – June 2022	Widespread **Integration of Digital Learning Technologies** within campus-based curriculum

**Characterised by a series of lockdowns in the UK through 2020 and early 2021.*

Participants

The target cohorts for this study were UG students enrolled in Health Professional degree programmes. These programmes were chosen as they covered broadly the same curricula but were managed by different departments and professional, statutory, regulatory bodies. A convenience sampling technique was adopted and students were selected based on their willingness to engage in the study and availability. Students across all year groups were contacted to ensure appropriate representation across the range of HE teaching and learning approaches in place during the timepoints highlighted above. All participants gave their informed consent.

In total, 24 participants across three different programmes of study (A-C) within the Health Professional degree programmes volunteered to take part in the study. A summary of the participating volunteers and their experiences of different teaching and learning approaches is presented in Table 2. For example, as noted in Table 2, participants in their

third year of study (Yr 3) had experience of all three phases of teaching and learning approaches which included prior to, during, and following Covid-19 induced campus closures. As participants were self-selecting, it was not possible to anticipate any specific demographic information prior to volunteers taking part. Furthermore, information about participant background for example, home country or a widening participation route to university, was not deemed as necessary information by the Faculty Research Ethic Committee, to address the research questions.

Table 2. Participant profile and experience of teaching and learning approaches.

Programme of Study	Year of study	Cumulative Experiences of Approaches to Teaching and Learning (pre Covid-19 through to post pandemic)	No. of participants	Gender	Percentage population
Programme A (UG)	1	(Yr 1) BL Approach	9	2 Male 7 Female	37.50
	2	(Yr 1) Remote delivery of Curriculum (Yr 2) BL Approach	1	0 Male 1 Female	4.17
	3	(Yr 1) Traditional Campus-based (Yr 2) Remote delivery of Curriculum (Yr 3) BL Approach	2	0 Male 2 Female	8.33
Programme B (UG)	3	(Yr 1) Traditional Campus-based (Yr 2) Remote delivery of Curriculum (Yr 3) BL Approach	9	2 Male 7 Female	37.50
Programme C (Graduate-Entry UG programme)	1	BL Approach*	3	1 Male 2 Female	12.50

		6 Male	
Total	**24**	**18 Female**	**100**

**Each of these students had previously completed 3 years of UG programme of study.*

Participants took part in one of seven focus groups held over the duration of the study (Appendix 1 - Focus Group Questions). One participant's contribution was facilitated through interview. Each session was audio-recorded and transcribed verbatim. First-year students made up 50% of the respondents, with most of these studying Programme A. The three participants on UG Programme C had previously completed a separate degree. Thus, for the purposes of this study, Programme C students are termed 'graduate-entry' students. These students were asked to focus their discussions on their experiences in Programme C over the timeframe of the study. The composition of focus groups can be observed in Table 3.

Table 3. Composition of focus groups.

Focus group (FG) /interview	No. of participants	Programme	Year of study	Level of study
FG 1	3	A	1	UG
FG 2*	3	C	1	UG
FG 3	5	B	3	UG
FG 4	5	B	3	UG
FG 5	2	A	3	UG
FG 6	5	A	1	UG
Interview	1	A	2	UG

**Each of these students had previously completed 3 years of UG programme of study.*

Data analysis

A reflexive thematic content analysis of the data from focus groups and interview (Braun and Clarke, 2006; 2021) generated prominent themes on student perspectives of teaching and learning before, during, and after the Covid-19 lockdown. The research team conducting the analysis was composed of academic staff and student researchers which added validity to the interpretation. Following familiarisation with the data, themes were initially independently developed from codes by three authors prior to the more refined process of reflecting and defining final themes by two of the three authors. In generating

meaning-based themes the analytic interest was located within wider sociocultural contexts of the development of student learning in BL campus-based programmes.

Findings

Two core themes emerged from the analysis: (1) belonging and community and (2) cognitive engagement and motivation. Subthemes feeding into the core themes are outlined in Table 4. In the following section, examples of themes and subthemes are presented, including through quotes from individuals represented as Student (S) 1 etc. Focus Groups are indicated as (FG) 1 etc. The student who consented to individual interview is represented as (SI) 1.

Table 4. Themes emerging from focus groups and interview.

Student Experiences of Blended Learning Approaches	
Belonging and Community	**Cognitive Engagement and Motivation**
Sub themes	*Sub themes*
Lack of peer interaction	Formative assessment opportunities
In-person better than online	Multiple modes of delivery
Disconnectedness with online large class teaching	Self-regulation strategies
Small group interactions (mostly first years)	

Belonging and community

Similar to Mali and Lim (2021), most participants (83%) highlighted the negative impact societal lockdowns had on learning, largely stemming from lack of peer-peer interaction. During such phases of remote teaching and learning students in their first and second years appeared to experience greater difficulties than those in their third year, or students with previous undergraduate experience. First-year students experienced a blended approach to their learning where large, full cohort lectures were delivered online, while their on-campus experiences were limited to some practical and clinical skills sessions. For first-year students, due to the small number of participants in these sessions, it was

harder to feel part of a university community when the majority of their large-group teaching was delivered live online (as observed during various Covid-19 lockdowns):

> S2, FG6: I think it was definitely a lot more difficult because we rarely met people outside of our own learning group, and actually it has been a lot harder than expected, because you don't get spontaneous interactions with other people on our course.

However, some first-year students did appreciate the camaraderie associated with smaller live online tutorial-sized groupings, as there was enhanced interaction here. The familiarity of small group live online teaching fostered some sense of community in comparison to their experiences of large class live online lectures. Similar to findings by Brouwer et al. (2016) smaller study groups within large student year groups helped promote social integration and lessened feelings of isolation. Some first-year students further commented that the live online experience made the transition between secondary and tertiary level education easier. The live online nature of teaching sessions meant that the fear of entering large lecture theatres and mixing with large cohorts of students in person was removed. As one first-year participant noted:

> S1, FG6: I was scared to be thrown into a huge lecture with you know, 300 people, that would have been really daunting to me. I think it's been better online. I like the lectures online. I wouldn't mind the tutorials in person, but that's because it's smaller.

Third year and graduate students generally preferred the large class live online teaching environment and highlighted the awkwardness of live online breakout rooms within large group lessons. This was based on students' unwillingness to actively participate or attempt to forge new friendships:

> S1, FG3: Everyone's getting put into breakout rooms and everyone's cameras are off and everyone's mics are off, and it's just like doing the assignment yourself anyway, so it doesn't make a difference.

This study highlights how different cohorts of students had varying feelings of connectedness to the institution over the course of the pandemic. Similar findings were

observed by Barringer, Papp and Gu (2022) with ethnic minority students. In the current study, neither final year nor graduate-entry students readily commented on negative social impacts from their experiences of live online learning. From their perspective, engaging in social networking online was functional rather than emotional as making connections focused on ensuring tasks would be completed rather than on the need to build emotional support:

> S1, FG2: So, when you're doing an interactive practical and you're in a breakout room with ten people and there's three people speaking. It's really like, yes, you're putting loads of effort in, but it's not in a social way. It's in a like say like 'we need to get something done' way.

This shift in focus towards building a transactional relationship rather than an emotional one as students experience various stages of tertiary level education may be representative of more experienced students having already established successful peer-peer relationships (Wilcox, Winn and Fyvie-Gauld, 2005). Similar to McFaul (2020) and QAA (2023) the data presented here suggest significant staff training is required to effectively design and facilitate live online small breakout group collaborative activities in order to avoid feelings of student isolation and disconnectedness. Concomitantly, student training is also essential to emphasise for students the enhanced learning and social benefits associated with active learning in the live online small group environment.

Blended Learning approaches can be associated with a reduction in on campus attendance and engagement (McFaul, 2020). However, it is important to reconceptualise notions of 'student engagement' rather than relying on attendance in campus-based settings. While some students find online class delivery a stimulus to not attend on campus (Kottasz, 2005) the relative anonymity of online delivery for large classes might encourage participation from those students who find it difficult to ask for help from teaching staff in person.

Cognitive engagement and motivation

Participants gave mixed responses regarding the provision of digital content during the various phases of teaching and learning adopted by the institution during the timepoints of

the study. Following an initial familiarisation with online learning delivery, students adapted well as they had been 'brought up using technology all the time' (S2, FG3).

The ability of interactive polling systems to facilitate student participation and provide instant relevant feedback was regarded positively by students across all years and programmes. First-year students particularly highlighted the role interactive polling played in supporting their confidence. The data highlights how students valued the associated anonymity which increased their interaction with the lecturer:

> S1, FG1: It's a confidence boost if you did well and if you didn't, then it would tell you how to direct your learning. Just to know you're doing something right? It's nice to see.

Appropriate adoption of digital technology can facilitate increased interaction with curriculum content beyond the live teaching session to support a wide variety of student learning styles. Formative quizzes, supplementary videos and immersive practical experiences were particularly important for students transitioning to HE as these provided essential reassurances that students were reaching necessary milestones and standards:

> S2, FG3: I like it whenever they [lecturers] have the weekly 'road maps' and they put up extra resources and extra videos, sort of as much supplementary material as they can as well, particularly whenever all of that is made available before the lecture, because I like to try and prep my notes with their lecture slides, so I can sort of just add in the extra comments throughout the lecture.

The opportunity to increase communication between teacher and student particularly in large live in-person classes (via interactive polling) and opportunities for asynchronous self-testing (via online quizzes) would not be possible without the technology. However, as emphasised by Higgins, Xiao and Katsipataki (2012) and Giesbers et al. (2013) learning gain is influenced by the heightened potential of these technologies as tools to relate student effort relative to learning outcomes. For example, live online audience polling has been shown to serve as a short but focused intervention to improve learning (Higgins, Xiao and Katsipataki, 2012). Individuals that engage with the use of such technologies, show a positive correlation with higher test scores (Giesbers et al., 2013).

Graduate-entry students who had previously completed a degree appeared to not need the same provision or volume of resources as early year students, tacitly identifying the use and value of additional materials to learning objectives:

> S2, FG2: I'll not go and actively look for supplementary material unless I know I've been struggling. I ignore a lot of the textbook links because I don't want to sit and read everything over and over again. I only want to know what I'm struggling with, find something that will help me with that, and then move on.

Data from final year and graduate students highlighted how less reliant they were on supplementary digital material and reported reduced engagement with online self-assessment activities. This may be reflective of enhanced confidence in their own methods of study and ability to self-motivate and self-regulate in addition to being more familiar with academic expectations:

> S1, FG2: I was still expecting a step-up in terms of amount of independent content compared to what I did in my previous degree, but I was definitely coming in with a better idea of how to study and what to expect for how the content would be taught.

In line with a recent report, commissioned by JISC (Killen and Didymus, 2022) our study confirmed that the most in-demand digital resource for students are lecture recordings currently accessed by 79% of tertiary level students (Brassington, 2022). Students' foremost concerns for learning resources are their accessibility off-campus and a user-friendly interface (Killen and Didymus, 2022). Whilst availability of resources makes it easier for students to access them for revision purposes, data from this study emphasise the subtle shift in how much or how reliant student cohorts are on various types of supplementary resources as students progress through the years. Consequently, in the creation of resources, a one-size-fits-all model is not appropriate. Instead, the driver in the adoption of a particular approach should be the educational context and the phase of the university lifecycle the student is in.

In Almendingen et al.'s study, the majority of students, irrespective of programme or year of study, reported reduced motivation and effort when their teaching was conducted online (2021). From the students' perspective this made studying difficult as they felt more open to distraction. When lectures were delivered live online and recorded synchronously,

participants noted that there was less pressure to physically attend as they felt they would be able to catch up at a later point. While some students found recordings useful, particularly when it came to revision, 67% of participants in this study acknowledged that there was a lack of accountability. Students felt that sometimes it was easier to 'stay in bed' or 'do it all at the weekend', with the knowledge that no one was following up on their activity:

> S1, FG1: When it came to the lectures, I would say I would take more in if I was in person, just because you have the tendency of saying 'aw, I'll join [the call] in bed', or I might get out of bed and just go back to bed halfway through it.

> S3, FG6: Like we don't have to be anywhere at a certain time. I know a lot of people who don't go into the lectures and watch the recordings instead, because they find it works better for them and they can pause it when they're watching through, but then sometimes you can have like six to catch up on at the weekend, so it is a lot more time management on our behalf, and having to motivate ourselves to do that.

Comparable findings have been reported by Broadbent (2017) where students were most negative about the impact digital technologies had on self-regulation and motivational strategies, unintentionally reducing individual accountability for learning and engagement. The integration of face-to-face delivery with digital technologies is not a new phenomenon and has previously been shown to place higher demands on the self-regulation of students (Bonk and Graham, 2012; Anthonysamy, Koo and Hew, 2020). Given the accelerated adoption of digital technologies during the Covid-19 pandemic this study highlights the necessity for staff responsible for teaching to intentionally adopt blended learning pedagogies which support student flexibility in whether to attend campus-based activities, and to also emphasise opportunities for students to engage in activities which focus on assisting students to manage their own learning progression.

When personal circumstances act as barriers to full time campus-based attendance, students with high levels of motivation and well developed self-regulatory skills can succeed and engage fully in BL models. This study highlights that for these students, lecture recordings were seen as reassurance and self-pacing tools, which could assist student to learn more efficiently, such that should the student wish to review material, the opportunity was there:

> S1, FG6: So I accumulated all of the lectures and have, as of today, just finished all of them. But that was really great for me because it de-stresses me and I get very stressed easily. Having that ability to know that the recordings were there so I could do them at a future date suited me. I really liked that, that's a positive.

Recordings and supplementary material to complement teaching sessions contribute to an enhanced flexibility in where and how students learn, which is sympathetic to changing student needs. The UKES highlights the increasing number of students who have taken on part-time employment (59% in 2022 in comparison to 43% in 2015) and are registered as have additional caring roles (37% in 2022 in comparison to 18% in 2015) (Holden, 2023). Online availability of resources makes it easier for modern student cohorts to access them at a time and place that is convenient to them. The rapid adoption of digital technologies and their significant role in supporting the delivery of content and online teaching during periods of societal lockdown should not be undervalued. However, there is a need to consider digital tools within a remodelled digital pedagogic context. Not doing so could inadvertently impede students' efforts to engage fully with their programmes, resulting in lower grades and a delay in course completion.

Discussion

In the current academic year (2023-2024) incoming students in UK HEIs now enter a revised university experience, with BL opportunities firmly embedded in their programmes. The discussion outlines how insights and experiences from learners are important contributions to inform future teaching design. In the first section we consider how BL approaches impact students' sense of belonging to their university community. The second section takes direction and influence from Beetham and MacNeil (2023) who progress a framework of 'pillars' for curriculum design to support people involved in curriculum and learning design in HE. Our findings in relation to these points are now considered.

Blended learning approaches can negatively impact sense of belonging

A student's sense of belonging in HE is associated with developing and sustaining strong positive relationships with staff and peers (Watson et al., 2010) and is linked to academic success (Osterman, 2000; Finn and Zimmer, 2012). As the extensive body of work on

transition pedagogies highlights, students who have a stronger sense of connectedness tend to have higher motivation, higher achievement, and higher levels of programme completion (Pedler, Willis and Nieuwoudt, 2022). However, while there is increasing demand from students for campus-based programmes to incorporate digital technologies (Killen and Didymus, 2022), data from this study highlights how provision of remote learning opportunities can in certain circumstances negatively impact students' overall sense of belonging. While participants had experience of both wholly online and hybrid/hyflex learning approaches, the consensus was that the reduced need for students to attend teaching sessions on campus threatened the camaraderie and relatedness of student experiences. French and Kennedy (2017) report similar findings: data presented here further demonstrates this was particularly heightened for first-year students.

The potential for digital technologies to support and enhance the student experience is undisputed. However, modes of learning can impact students' sense of belonging in a variety of ways. This study emphasises the necessity to intentionally integrate the socialisation opportunities of the classroom with technologically enhanced flexible learning opportunities to support students' sense of being valued, included, and accepted.

Designing a pedagogy for blended learning frameworks

Data from this study highlights the contextualised nature of BL approaches which either supported or impeded students' cognitive engagement and sense of belonging. This was dependant on both students' personal circumstances and the learning environment. For example, provision of lecture recordings offered essential flexibility, reassurance, and support in some contexts, but led to student procrastination and a reduction in usefulness in others. While students appreciated the provision of lecture recordings, they also acknowledged the impact of these on campus attendance and their own self-regulation strategies. What these results highlight is the situated nature of student learning in HE. Rather than debate the necessity or redundancy of providing lecture recordings or supplementary resources the discussion should centre on how such resources are tools to underpin and promote personalisation of the learning process. Existing frameworks such as Beetham and MacNeil 's (2023) Six Pillars of Blended Learning should be considered as appropriate support for educational developers to explore.

Digital technologies enable more flexibility in the delivery of teaching with resources available at times and places convenient to student lifestyles. Yet little is known about self-regulation in BL environments in traditional campus-based institutions (Eggers, Oostdam and Voogt, 2021). In HE students have significant autonomy over their learning trajectory which can inadvertently negatively bias against those students with poor self-regulatory and/or time management skills (Richardson, Abraham and Bond, 2012). This paper argues that a hybridised curriculum needs to consider approaches to teaching and learning particularly in the early years of a curriculum that strategically cultivates awareness of what it is for a student to self-monitor their individual needs and self-regulate their learning activities in line with the requirements for their specific discipline. This is in tune with Beetham and MacNeill's recommendations (2023) which emphasises 'Support' as a key pillar to enable learners and students to engage in diverse modes of learning.

There are obvious idiosyncratic differences between institutions, programmes of study, and subject areas. From a sociocultural perspective, students' decision to engage (or not) with on campus and/or digital resources is fundamentally linked to the social and cultural conditions of their learning and previous life experiences. Consequently, digital pedagogies created early in the Covid-19 era to support teaching should be re-considered in light of the context in which they are currently delivered. During Covid-19 the emphasis was on providing immediate support and resources for students in acknowledgement of the difficulties associated with remote teaching and learning. The emphasis has now changed, and, as highlighted by Beetham and McNeill's (2023) 'Flex' pillar, the current rationale for BL approaches in traditional campus-based HEIs is underpinned by the assumptions of students that there is enhanced access and flexibility of learning resources (Killen and Didymus, 2022), and of senior managers that modern universities need to increase student satisfaction and reach a diverse student population (Ibrahim, Howarth and Stone, 2021).

There are considerable virtues in pursuing multiple forms of teaching and learning as permitted through the 'Blend' pillar (Beetham and McNeill, 2023): it empowers an increasingly diverse student population to adopt various approaches and personalise their learning and enables teaching staff to employ approaches that align with their preferred mode of instruction. The issue then is for faculty, programme and subject leads to clearly align, and then rationalise the presence of digital pedagogies within their campus-based curriculum, underpinned by appropriate evidence as to their intended outcome in

supporting student learning. Similar to arguments put forward by Nordmann, Hutchison and MacKay (2022), students need explicit guidance on how to engage with and study alongside learning technologies.

In tandem with this and as highlighted by Beetham and MacNeil (2023) there must be institutional support for academic training in both the pedagogy and technology associated with the effective use and evaluation of digital technologies. To reify the 'Support' pillar (Beetham and MacNeill, 2023) HEIs need significant staff buy-in, increased staff-student ratios, and additional financial and infrastructural support to operationalise blended approaches to teaching and learning.

Limitations of the study

Our goal is to illuminate experiences of teaching and learning practices during the Covid-19 era and its aftermath, and so contribute to the growing body of research that is needed to inform future practice in learning development and pedagogic design. However, we recognise idiosyncratic differences and acknowledge how perspectives and recommendations vary among groups of individuals, by discipline, and by institution. The current study explores the experiences and perceptions of a small group of students in one HEI and thus the findings are localised to the setting and discipline. While there is no intention to generalise, where our results align with previous studies or highlight inconsistencies, these are highlighted.

Conclusion

This research adds to the limited number of studies exploring student experiences of BL approaches adopted by UK HEIs post societal lockdowns. From a learning development perspective our findings highlight factors which influence students' learning experience in BL curricula and provides further insight into how the community can improve the learner experience when curricula are intentionally designed for different modes of learning. Our study echoes the ethos and practice of learning development educators by emphasising the urgent need to support a model of BL that forefronts students' knowledge of and engagement with self-regulated learning. Key recommendations also emphasise the

importance of social bonding and a sense of belonging in supporting learning. Our work compliments the values espoused by the Association for Learning Development in Higher Education (2023), and in advocating effective learning development practice to Value 3 in particular. Data from the study highlights the opportunities BL curricula can offer for learners. However, to meet the challenges in developing blended approaches which promote student learning, teaching staff need support to design curricula which intentionally incorporate pedagogies to help students monitor and reflect on their own progress and practices.

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