Is flexibility in higher education just a matter of convenience? A critical literature review

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1. Executive Summary

Introduction
Flexible learning has become a defining feature of higher education, promoted for its adaptability in time, space and pace. However, this review challenges the assumption that flexibility is simply a matter of convenience. Instead, it explores how flexible learning intersects with student agency, institutional structures and broader social factors. The core argument is that flexibility must be understood not only as a system offering choices, but as a dynamic interaction between learners, institutions and contexts.

Conceptualisations of Flexible Learning
The concept of flexibility is multifaceted and contested. While often framed as empowering, it can mask structural inequalities and shift the burden of decision-making onto students without sufficient support. Critics highlight a disconnect between institutional system-level flexibility and students' actual capacity to benefit from it. True flexibility should cultivate personal learner development, not just offer logistical freedom. This requires a rebalancing of values, placing pedagogical quality and equity above efficiency or market responsiveness.

Institutions and Pedagogy
Institutions play a pivotal role in determining whether flexibility is meaningful or superficial. Offering various study modes alone is insufficient. Pedagogical frameworks must ensure learning remains coherent, rigorous and inclusive. Effective flexible learning environments are intentionally designed, combining autonomy with structure and integrating student support. Without such coherence, flexibility can fragment educational goals and place students at risk of disengagement or failure.

Technological Barriers
Technology has enabled many aspects of flexible learning, but it also presents significant barriers. Unequal digital access, varying levels of digital literacy and poorly integrated learning platforms can hinder student engagement and success. The assumption that all students are naturally digitally fluent ignores real disparities in skill and confidence. Institutions must invest in accessible platforms, digital training, and inclusive technology use to ensure that flexibility benefits all students.

Student Preferences and Autonomy
While flexibility can support learner autonomy, it also assumes high levels of self-motivation and time management. Many students appreciate the freedom of online or asynchronous learning, but others struggle without clear structure or support. Preferences for learning mode often reflect students' broader needs for social interaction, feedback and stability. Institutions must therefore balance autonomy with appropriate scaffolding and guidance to help students make and navigate their choices effectively.

Student Characteristics
Individual differences, including personality traits, mental health status, and neurodivergence, significantly affect how students experience and benefit from different learning modes. For example, some traits may support self-regulation and comfort with remote learning, while others heighten stress or reduce satisfaction. Neurodivergent students may benefit from flexible pacing but are often excluded by poor platform design or lack of clarity. Inclusive, universal design and proactive support are essential to ensure flexible learning is truly accessible and beneficial for all learners.

Cultural and Contextual Influences
Cultural expectations, infrastructure and socioeconomic conditions deeply shape how students engage with flexible learning. In many global contexts, limited internet access, under-resourced institutions, or strong preferences for face-to-face learning present significant challenges. Additionally, social roles (such as caregiving) can influence whether flexibility empowers or overwhelms. Institutions must adapt their flexible learning models to account for these contextual realities, rather than assuming universal applicability.

Conclusion
Flexible learning must go beyond offering choices. It should empower students through informed decision-making, inclusive design and institutional responsibility. True flexibility requires more than convenience; it must be grounded in pedagogical integrity, equity and student agency. Institutions should not only support students once they have selected a mode, but also guide them in choosing the most suitable one. When designed intentionally and inclusively, flexible learning has the potential to support diverse learners and promote meaningful educational engagement.

2. Introduction

In recent years, higher education institutions have increasingly adopted flexible learning models as a response to the evolving needs of students (Brennan, 2021; Barnett, 2014) and the need to diversify their recruitment. This shift is not only a response to logistical constraints but also reflects a broader trend towards student-centred learning, where autonomy, self-regulation and personalised experiences are prioritised. One driver of this has been the marketisation of the student experience (Furedi, 2010), characterised by students' personal financial investment and entitlement to 'value for money'. Advancements in technology, which accelerated greatly due to social restrictions during the COVID-19 pandemic, have further facilitated this shift (Salem et al, 2024; Peimani and Kamalipour, 2021). Flexible learning has thus emerged as a prominent feature of contemporary higher education.

Flexible learning is framed as allowing students to personalise their learning experiences through institutional provision of options for part- or full-time, online, blended and face-to-face learning (Brennan, 2021). However, the concept of flexibility in education is multifaceted and requires careful examination to understand its implications fully (Barnett, 2014). Flexibility is not a one-size-fits-all solution and its role in fostering student success can vary depending on individual needs, technological access, and the institutional support available. This review will explore the definitions of flexibility in education, its impact on different learning modes and the psychological, cultural and contextual factors that influence how students engage with flexible learning systems. The aim is to review the literature with a focus on individual differences as they pertain to the student experience of flexible learning, including a critique of the notion of flexibility in higher education as a matter of convenience. This review explores the extent to which different study modes meet students' needs, and what considerations should be taken into account when navigating a choice between different modes of programme delivery.

3. Conceptualisations and critiques of flexible learning in higher education

Barnett (2014), in a seminal report sponsored by the Higher Education Academy (now AdvanceHE), discusses the conditions for flexibility in a responsive higher education system. They note that flexibility is not an 'absolute good' (Barnett, p.7), but harbours inherent risks, including the fragmentation of educational goals, lowering of standards and untested effects on the value of student experience. Such risks may arise from prioritising students as customers over pedagogical values, such as the development of students' skills and capacities as global citizens in an increasingly complex world. Barnett (2014) argues that true flexibility requires a nuanced approach that considers the competing demands of different values in higher education.

Due to increasing pressures on funding for higher education and regulatory oversight of student interests by the Office for Students (OfS), the balance of values has shifted since the publication of Barnett's (2014) report. It has tipped decidedly towards concern for cost-effectiveness, student satisfaction and retention, rather than the development of innovations in educational experience and new ways of developing students' capacities. This is driven by current financial pressures within the sector and competition for students (Office for Students, 2025) It is therefore not surprising that AdvanceHE's Flexible Learning Framework (2019) focused on four key areas: technology-enhanced learning, employment, institutional systems and structure and pedagogical approaches rather than student-centred empowerment to make the most of the flexibility on offer.

The 2019 framework was considered in the light of a comprehensive literature review on flexible learning spanning the years 2016 - 2021 (Loon, 2022). It is notable, however, that students are afforded a relatively passive role in the subsequent version of the Flexible Learning Framework (2024) too. Whilst they are encouraged 'to develop knowledge, confidence and capabilities…to work…in online and hybrid environments' and to 'reflect on their personal aptitudes and aspirations… to identify… their own learning goals' (p.13) there is little effort to empower students to consider variables beyond time, place and convenience in proactive selection of suitable learning environments for their circumstances, capabilities and learning needs. Although Loon (2022) briefly discusses the role of student characteristics and behaviour on their learning in a flexible environment, and acknowledges the possibility of a more active role for students, the notion of partnership between stakeholders without explicitly empowering students to contribute actively as partners seems, unapologetically, to perpetuate power differences between students and those who service their learning needs. It appears that an opportunity for a useful student-educator partnership has been missed in shaping and promoting comprehensive flexible learning opportunities.

Barnett (2014, p. 27) distinguishes between 'systems flexibility' and 'personal forms of flexibility'. They argue that it is not sufficient for higher education institutions to put in place systems and technology that enable flexible learning. These are considered a prerequisite, but rather than an end in itself, the goal should be to enable and empower students to develop personal learner flexibility. Barnett (2014) acknowledges that this may create tensions around the need for educational and pedagogical control to bring about genuine learner flexibility, as they consider flexible pedagogies and institutional flexibility insufficient to bring about learner flexibility. This requires a degree of challenge in the learning context, which may be at odds with a consumerist view of students. The implication is that students cannot be passive recipients of flexible learning, but must be empowered and guided to make active choices within the constraints of pedagogies that aim to develop learner flexibility. In this sense, flexible learning is not just a matter of convenience but should be based on informed choices, which go beyond merely logistical considerations.

Houlden and Veletsianos (2019) adopt a posthumanist perspective to critique the celebratory rhetoric around the narrative of 'anytime, anyplace'. They argue that it glosses over the structural inequalities that shape students' actual capacity to learn and assumes an abstract, disembodied learner who exists independently of material, social and emotional contexts. Houlden and Veletsianos (2020) further contend that it is overly focused on the systems aspects of flexibility and dependent on the idealistic assumption that access to time and place is universal. They suggest that flexibility is often imposed on the learner rather than supporting them, with the 'free' learner operating within the constraints of neoliberal power systems. Normative flexible education presumes learners' readiness to self-improve, their ability to self-regulate, and their drive towards increasing their human capital. In making these assumptions, this framing of flexibility neglects the lived realities of students whose ability to benefit from it is shaped by structural inequities, responsibilities and varying levels of digital access and support.

For students from marginalised groups, or those lacking digital access or self-regulation skills, choices around flexibility can feel more like abandonment than empowerment. Houlden and Veletsianos's (2019) critique reminds us that the promise of flexible learning cannot be fulfilled without systemic attention to equity. The digital divide, varying levels of digital literacy and the absence of meaningful institutional support exacerbate these challenges. Flexible learning models must therefore be designed with equity at the forefront - not only offering options, but actively reducing the barriers that prevent students from engaging with those options. Rather than viewing flexibility as inherently freeing, therefore, the authors call for a more situated and relational understanding of learning that centres context and equity. This critique strengthens the case for caution in equating autonomy with empowerment. In their review of flexible learning pathways in UK higher education, Brennan (2021) concludes that the system provides prospective students with a lot of choice, but they often do not receive sufficient information about the options available and the factors they should consider to make informed decisions about their flexible learning journeys.

Flexibility and learning modes

Whilst flexible learning via distance and correspondence courses has a long history, current notions of flexible learning are inextricably linked with technology-enhanced learning and online facilitation of learning materials and classes. The choice of where, when and how to learn has therefore long been available, although it was limited by inherent restrictions due what was technically possible, for example, distance learning, by definition, precluded synchronous learning involving peers and educators, a limitation which is no longer a barrier due to the widespread use of interactive online tools. Peimani and Kamalipour (2021) highlight that asynchronous learning technologies enable students to engage with course materials at their own pace, offering an ideal solution for learners with varying schedules and responsibilities. These flexible learning environments are especially beneficial for students who may face time constraints due to work or family obligations. For

example, Alkhunaizan (2019) points out that online learning can be an essential tool for students who do not have easy access to traditional campus-based education.

As higher education institutions increasingly adopt flexible learning models, learning modes can be defined along two dimensions: physical proximity of the learner and other participants in learning and teaching (co-located or remote) and temporal interaction (synchronous or asynchronous). Both, online and class-room-based learning can be delivered synchronously supported by independent or collaborative asynchronous learning. However, in practice, online learning models often make more use of structured asynchronous learning activities, whereas classroom-based learning emphasises synchronous modes of learning. Blended learning models draw on both to varying extents and can be delivered either partially face-to-face or online using interactive learning technologies. Peimani and Kamalipour (2021) argue that blended learning provides an optimal blend of flexibility and structure. They contend that by combining asynchronous online learning with synchronous face-to-face interaction, the blended model accommodates students who benefit from the flexibility of online learning while still providing the structure and social presence of in-person instruction. Ncibi and Das (2024) emphasise the value of educational technologies such as Blackboard in facilitating accessibility and interaction in blended learning, suggesting that when technology is used effectively, blended modes can enhance both satisfaction and student performance. This model can address a wider range of student needs, providing personalised learning pathways that still emphasise interaction and community engagement, in recognition of the social benefits of face-to-face learning, which are not replicated in a remote online discussion environment (Shu and Gu, 2018).

Technological advancements have been pivotal in enhancing flexibility, particularly in online learning environments. Pedagogical possibilities in online learning compared to face-to face learning have converged to such an extent that the assumption is that there is equivalence in programmes with the same learning outcomes but delivered in different modes. On the surface, it seems reasonable to suppose that it is a matter of personal preference and/or circumstances which should determine a student’s choice of learning mode in equivalent programmes. However, emerging research suggests that students' needs, psychological factors, digital skills and personal contexts all play a role in determining which mode may offer the best experience and outcomes.

Differences between online and face-to-face learning

Shu and Gu (2018) used social network analysis and thematic analysis of interaction clusters to examine differences between student group interactions in online learning environments compared with face-to-face interaction in blended learning. Online interactions showed a group-controlling pattern (i.e. not dominated by one individual) in which participatory behaviour is wide-ranging but relatively unfocused, whereas face-to-face environments in this study were characterised by individual-controlling interaction patterns centred around the teacher. They also found that classroom interactions were more in-depth than those online, although depth increased during

the early teaching weeks and reached a steady state during the final weeks in both modes. Furthermore, there is evidence that different learning modes are preferred by students seeking different learning experiences, for example, face-to-face learning was preferred for building conceptual understanding whereas online learning was perceived to support self-regulated learning (Paechter and Maier, 2010).

Further studies highlight that students' preferences and outcomes are shaped not simply by convenience, but by individual learning goals, digital competencies and curriculum structure. Marleku and Peshkopia (2025) found that students with high computer literacy adapt well across all modes, while those pursuing hands-on, practical learning preferred on-site instruction, and students engaged in research-oriented activities favoured online or mixed-mode formats. This suggests that study mode choices should be informed by a student's learning orientation, desired learning outcomes and the demands of their programme, rather than assumed to be interchangeable. Salem et al (2024) conducted a three-year longitudinal study and found that while online learning improves satisfaction and academic performance, face-to-face learning better supports motivation, blended learning tends to enhance satisfaction but may lower academic achievement. These findings reinforce the idea that each mode has trade-offs, and choosing the right balance is key to maximising both engagement and success. In addition, some subjects may be more suitable for online delivery, while those with practical learning requirements may need more attention to how this translates to an online environment. Reichgelt and Smith (2024) challenge common assumptions about the superiority of face-to-face learning by showing no significant difference in student outcomes across delivery modes when course design is sound. They argue that effective learning depends less on the format and more on adaptability, support and intentional design.

Making the most of choices

While systems flexibility involves offering students different learning pathways and access to various educational resources, personal flexibility is about empowering students to make informed decisions based on their unique preferences and life circumstances (Barnett, 2014). According to Barnett, true flexibility requires more than just institutional provision of diverse learning modes - it must also enable students to make informed decisions about how to develop the skills necessary to manage their learning independently. It is the capacity for students to manage when and where they engage with educational content which enhances the development of learner autonomy. This is increasingly recognised as a key driver of student engagement, motivation, and academic success. However, students may be unaware of how to optimise decisions on different learning modes.

In summary, there is a requirement for a nuanced understanding of how flexibility operates at both the institutional and individual levels. Students need more guidance and information to make informed decisions about their learning modes. While flexibility can empower students to take control of their learning experiences, it must be accompanied by adequate support systems, technological access, and guidance to ensure its success. For flexible learning models to be effective, institutions must

ensure that they do not prioritise convenience over pedagogical quality. This requires a balance between offering autonomy to students and maintaining educational rigour, ensuring that students are not simply left to enter and navigate their learning environments without adequate support or guidance.

4. Institutions and pedagogy

It is evident that the successful implementation of flexible learning environments at an institutional and pedagogical level requires more than the adoption of technology and offering multiple learning modes (AdvanceHE 2024; Barnett, 2014). It also necessitates critical engagement with the pedagogical frameworks and institutional strategies that underpin these systems (Barnett, 2014). Institutions play a central role not just in offering flexibility, but in ensuring that flexible options maintain academic integrity, foster genuine learning, and promote equitable student success. Without careful design, flexibility risks becoming a superficial label that responds more to economic pressures or student convenience than to pedagogical coherence. Barnett (2014) cautions that when institutions prioritise efficiency or market responsiveness over educational values, the result can be the fragmentation of educational goals.

Maximising the benefits of flexibility

There is evidence suggesting that blended learning may offer a pedagogically sound compromise, combining the adaptability of online access with the structure and immediacy of in-person interaction (Jenkins and Crawford, 2016). Educators in blended contexts must walk a tightrope between providing autonomy and offering support, often needing to adapt rapidly to diverse learner needs. Well-designed blended environments foster not only the convenience of asynchronous learning, but also collaborative and experiential learning which are often underdeveloped in this format. Ramírez-Montoya and Ramírez Hernández (2016) similarly advocate for instructional models like inverted learning, which use digital tools to shift content delivery outside of class and reserve classroom time for active, personalised engagement, emphasising that flexibility must be underpinned by intentional pedagogical structures to be effective.

Nguyen et al (2021) focus on drawing lessons from students' experiences during the COVID-19 pandemic. Whilst students appreciated the flexibility and autonomy of remote learning during the pandemic, they missed the interactive and socially engaging class environments. In an online synchronous learning context active-learning pedagogies are perceived as motivating and engaging. This reinforces the idea that students value autonomy, but not at the expense of social connection or pedagogical integrity. Bugge and Wikan (2016) support this view through their evaluation of video-based instruction in Norwegian higher education. They suggest that while digital resources can improve accessibility and convenience, they often fail to enhance learning outcomes unless paired with clear instructional design and interactive engagement. Students reported that video lectures were most effective

when integrated into structured pedagogical models, rather than used as stand-alone materials. This reinforces the point that technological tools must serve pedagogical aims, not replace them.

Support systems are also a critical piece of the puzzle. Flexible environments often assume a high degree of student autonomy, but this assumption can mask the very real challenges many learners face. Institutions must invest in academic scaffolding to help students navigate the demands of flexibility (Brennan, 2021). Without such support, flexibility risks becoming a form of institutional withdrawal, where students are left to self-manage in the name of autonomy, but without the tools to do so effectively. An example to illustrate the potential and pitfalls of flexibility can be found in assessment practices. Wanner et al (2021) advocate for flexible assessments, such as portfolios, project-based tasks, or multimedia presentations, as ways to adapt to diverse learning preferences. Yet such approaches also require careful calibration. If too unstructured, they may lack the rigour or clarity that some students need; if poorly integrated, they can become performative rather than pedagogically meaningful. As Veletsianos and Houlden (2019) argue, flexibility must do more than accommodate individual needs and wants. It must challenge students in ways that promote intellectual growth without overwhelming them or undermining clarity.

Best practice

Institutional policies must align with goals associated with maximising the benefits of flexibility, ensuring that flexibility is grounded in transparency, support and coherence. Jones-Devitt (2014) highlights how Sheffield Hallam University developed flexible learning strategies not simply as a means of choice, but as a way to empower students to navigate complex educational and career pathways. This vision of flexibility as ‘intentional and supported’ contrasts with models that treat flexibility as a passive offering. Similarly, Valtonen et al (2020) draw attention to students’ growing demand for informal, student-centred learning spaces, a trend that suggests the need for flexibility in both curriculum and physical learning environments. In this vein, O’Toole (2016) presents a student partnership model that positions learners as ’Student Champions’ in driving institutional change. The report outlines how students can be empowered to co-design educational practices, contribute to flexible delivery innovations and enhance inclusivity across modes of study. Rather than viewing students as passive recipients of flexibility, this approach reframes them as co-creators of pedagogical transformation. It demonstrates how institutions can embed flexibility through collaboration, dialogue and shared responsibility, reinforcing that pedagogical innovation is most effective when rooted in values of mutual engagement and empowerment.

In conclusion, the integration of flexibility into higher education demands more than a menu of learning options. It requires a critical, pedagogically grounded approach that prioritises educational quality and equity over superficial responsiveness. Flexibility should not be mistaken for pedagogical innovation unless it is accompanied by clear structure, robust support, and a commitment to cultivating rich learning experiences. Institutions must take care to ensure that their flexible learning environments are not

simply convenient, but coherent, inclusive, and educationally purposeful (Salem et al, 2024; Reichgelt and Smith, 2024; Brennan, 2021; Peimani and Kamalipour, 2021). Empowering students to make informed decisions about alternative learning modes available for their chosen programme of study is very much part of this.

5. Technological barriers to flexibility

Technological advancements have made it possible for students to access learning materials asynchronously, participate in virtual classrooms, and engage with a wide range of digital tools designed to enhance their learning experiences (Peimani and Kamalipour, 2021; Alkhunaizan, 2019). Online learning platforms, such as learning management systems, virtual learning environments and digital assessment tools, have become essential components of the flexible learning landscape (Bervell et al, 2024; Ramírez-Montoya and Ramírez Hernández, 2016). However, while these technologies hold immense potential for empowering students and increasing the accessibility of education, the successful implementation of these tools requires careful consideration of accessibility, equity and technological proficiency (Peimani and Kamalipour, 2021; Veletsianos and Houlden, 2019).

Equitable access to flexible learning

Flexible learning environments are especially beneficial for students who may face time constraints due to work or family obligations. As Alkhunaizan (2019) notes, online learning can serve as an alternative for those without access to traditional campus-based education. However, while such flexibility is often globally marketed by institutions as universally accessible, it raises significant concerns regarding equity and inclusion. Veletsianos and Houlden (2019) argue that there is a common assumption that all students have equal access to the technological tools necessary for success in online learning environments. In reality, many students, particularly those from underserved or rural areas, face digital divides, such as limited access to reliable internet connectivity or appropriate learning devices, which hinder their ability to fully engage with online education (Alkhunaizan, 2019). This lack of access creates substantial barriers to participation and reinforces existing educational inequities. Similarly, Feldacker et al (2017) highlight how technological limitations in regions with underdeveloped infrastructure, such as sub-Saharan Africa, further deepen these divides. While mobile technologies may offer some mitigation in these areas, a comprehensive solution requires sustained investment in broadband infrastructure and device accessibility. Higher education institutions (HEIs) need to be mindful of potential limitations when recruiting students who have less reliable access.

Accessibility of technology-enhanced flexible learning

Even for students with physical access to reliable technology, the skills required to navigate digital platforms can be a barrier. Bervell et al (2024) highlight that digital literacy is a crucial skill for students in online learning environments and students

who are unfamiliar with technology may struggle to engage effectively with digital tools. For instance, students who lack experience with learning management systems, video conferencing software or online collaboration tools may find the transition to online learning difficult, which could lead to decreased engagement and academic performance (Bervell et al, 2024). Similarly, Acosta et al (2018) note that in specialised fields, such as optometry, students' acceptance of e-learning technologies is hindered by technical difficulties and a lack of familiarity with online platforms. The authors suggest that while flexible learning can be an effective mode for these students, it requires additional support to help them develop the necessary digital literacy.

There is an assumption that students are 'digital natives' (Prensky, 2001) having grown up surrounded by digital technology. This assumption liberates providers from having to advise students with respect to the accessibility of their programmes beyond minimum technical requirements. However, more recently it has been argued that the conflation of digital literacy with exposure to digital technology is unhelpful when considering the skills new students bring to studying in higher education (e.g. Reid, Button and Brommeyer, 2023). Equally, proficiency with digital games and/or social media does not necessarily translate into skills in navigating flexible learning environments. Brennan (2021) highlights that, despite the choice provided by flexible learning pathways, students often lack sufficient information to make informed decisions. Without clear guidance on how to choose the most suitable learning mode for their skill profile, students may struggle to navigate the various options available, potentially undermining the effectiveness of flexibility. Therefore, it is crucial for institutions to provide students with comprehensive information and support, helping them to effectively assess their skills and make decisions that align with their academic goals and personal circumstances.

Technical Integration

Another significant barrier is the institutional capacity to support technology integration. While many institutions have adopted digital platforms to facilitate online learning, the quality of these systems can vary widely (Brennan, 2021; Ramírez-Montoya and Ramírez Hernández, 2016). Brennan (2021) notes that the design and functionality of learning management systems are critical to their effectiveness. Poorly designed platforms that are difficult to navigate or lack key features (e.g. interactive assessments, peer collaboration tools or multimedia content) can hinder students' ability to engage meaningfully with their coursework. The integration of Blackboard technology, for instance, plays a significant role in enhancing student performance and satisfaction, as highlighted by Ncibi and Das (2024). This paper emphasises the critical role that platforms like Blackboard play in providing an accessible and user-friendly interface that supports both student engagement and academic success. Therefore, it is essential for institutions to invest in both the technological infrastructure and faculty training required to ensure that flexible learning systems are fully operational and accessible to all students and staff (Brennan, 2021).

In summary, it is worth keeping in mind that digital literacy varies greatly, and students often need guidance and training to effectively engage with online platforms. They should be empowered to reflect on existing skills and barriers to engagement in a particular mode of learning before embarking on a programme of study in a particular mode, especially when there is a choice. Institutional strategies for digital integration, pedagogies and skills training need to be aligned, well integrated and sufficiently resourced to support students on a flexible programme of study.

6. Student preferences and autonomy

Preferred pedagogies

A substantial body of research asserts that students exhibit diverse learning preferences that significantly influence their choices between online, blended and face-to-face learning modes (e.g. Bervell et al, 2024; Itasanmi et al, 2024; Peimani and Kamalipour, 2021). Online learning environments, particularly those incorporating asynchronous components, provide students with the flexibility to engage with course content at their own pace, balancing academic commitments with other personal responsibilities (Zapata-Cuervo et al, 2023; Lytras et al, 2022). Berga et al (2021) found that students reported notable differences in engagement and satisfaction although academic performance was consistent across online, blended and face-to-face formats. This suggests that mode preference is shaped more by perceived quality and alignment with individual learning preferences than by anticipated outcomes. However, while flexibility may empower students to tailor their educational experience, it also reflects an underlying shift in responsibility from institutions to learners that may not be universally beneficial (Houlden and Veletsianos, 2020).

Peters et al (2016) report on a project where students conducted case studies on their experiences with flexible learning practices. Students appreciated the accessibility and control over their learning but also experienced considerable challenges related to time management and motivation - skills that flexible learning presumes. Similarly, Finlay et al (2022), in their study of sport and exercise science students, found that while many appreciated the autonomy of a fully virtual environment during the COVID-19 pandemic, the majority expressed a clear preference for a blended approach. These findings challenge the assumption that greater autonomy inherently equates to a better educational experience.

Challenges to autonomy

Xavier and Meneses (2021) reinforce the tension between flexibility and support by linking increased autonomy with higher dropout rates, attributing this to inadequate systems for helping students navigate self-directed learning. While learner control is attractive, it risks oversimplifying the support many students need to succeed. Nikolopoulou et al (2021) argue that while students appreciate the convenience of

online learning, many still prefer face-to-face or hybrid formats for their social interaction and motivational benefits. This preference is particularly strong among students who value direct engagement with lecturers and peers, highlighting the importance of structured, interactive components in flexible design.

Peimani and Kamalipour (2021) argue that students with high self-regulation excel in online learning, while those struggling with time management benefit more from blended or face-to-face formats. The blended model, integrating online flexibility with in-person structure, may offer the best balance, supporting both autonomy and engagement (Wong and Chapman, 2022). Alabdulkarim (2021) supports this, finding that students in blended environments prefer team-based, interactive learning over traditional lectures. This reinforces the idea that flexible formats must actively encourage collaboration and provide scaffolding, especially for students less suited to independent learning.

Equity and engagement

For some students, learning mode is dictated more by constraint than preference, particularly regarding technology access, social support and life circumstances (Zapata-Cuervo, 2023; Alkhunaizan, 2019). Students lacking digital access or literacy may be excluded from online options. Alkhunaizan (2019) notes that flexibility is essential for learners balancing work, family and study. However, conflating flexibility with inclusivity is misleading as making different learning modes available does not guarantee that they are supportive or equitable.

Itasanmi et al (2024) found that employment status and digital proficiency shape graduate students' preferences, with many favouring blended learning for its adaptable yet structured nature. Zapata-Cuervo et al (2023) stress that students in rural or digitally? underserved areas rely on flexible modes, yet often without sufficient institutional support. Price Banks and Vergez (2022) found that although students opted for online learning during the COVID-19 pandemic for safety and convenience, many still viewed face-to-face learning as more engaging and effective. Preferences are often dynamic, shaped by external conditions, and may futher? shift post-pandemic as support evolves.

Although flexibility offers autonomy, it demands high levels of self-management. Houlden and Veletsianos (2019) warn that this can empower some while burdening others lacking adequate support. This raises key institutional responsibilities to ensure flexibility does not equate to a withdrawal of support. Xavier and Meneses (2021) and Soffer, Kahan, and Nachmias (2019) affirm that success in flexible environments is closely tied to self-regulation and resilience. Institutions must go beyond offering modality choices by providing clear information and sustained academic support (e.g. workshops, peer mentoring, coaching). This scaffolding is essential to equip all students (regardless of learning mode) for independent success.

In summary, while flexibility offers a pathway to autonomy, it is not a universal good. Its success depends on students' readiness, institutional support and the pedagogical integrity of learning environments. Flexible learning should be grounded in informed choices, supported by robust systems that prepare students to take advantage of autonomy rather than be overwhelmed by it (Brennan, 2021; Xavier and Meneses, 2021; Soffer, Kahan and Nachmias, 2019). Without this support, flexibility may shift the burden of success onto students unequally, reinforcing rather than redressing educational disadvantages.

7. Student characteristics and modes of learning

Research evidence on the effect of personal characteristics on adaptation to different learning modes is scarce. However, several recent studies have examined how individual differences, such as personality, mental health and neurodiversity, affect study mode preferences and student outcomes. Much of this research emerged in the context of the rapid shift from face-to-face to online teaching during the COVID-19 pandemic and is therefore contextualised in temporary changes in study mode. Nevertheless, they provide a valuable insight into how student characteristics impact perceptions of different learning modes.

Personality and emotional factors

Mustafa et al (2022) explored the impact of the Big Five personality dimensions (McCrae and Costa, 1997) on student satisfaction with online teaching and intention to participate in online learning. Their findings revealed that extraversion had a negative impact on satisfaction with online teaching, while openness was inversely related to the intention to adopt online learning. This suggests that students with certain personality traits may find online environments less conducive to their learning, despite the inherent flexibility they offer. Markiewicz, Kaczmarek and Gas (2023) investigated the effect of personality dimensions on mental health and drug use in a comparison between online and hybrid learners. Online learners were significantly more likely overall to use sleeping tablets, sedatives and antidepressants indicating an increased psychological stress response to challenges related to COVID-19 mandated online learning. However, those with high levels of extraversion, agreeableness, openness to experience and emotional stability were protected from this effect, indicating that personality dimensions and the psychological response to different learning modes are related.

Tavitiyaman, Ren and Fung (2021) examined how personality traits, learning anxiety and technical anxiety influenced perceived learning and satisfaction in a sample of students affected by the sudden onset of online learning. They found that agreeableness, openness and neuroticism significantly predicted higher levels of anxiety. Students with higher introversion scores were particularly prone to technical anxiety, while conscientious students experienced less anxiety. The study concluded that personality predictors accounted for 40-60% of the variance in anxiety, which, in

turn, significantly impacted students' experiences of online learning and student satisfaction. Their findings underscore the role of personality traits in shaping how students adapt to flexible learning environments and the level of satisfaction they derive from them.

In a related study, Hong et al (2023) examined the relationship between personality traits, self-efficacy and performance anxiety in online learning during lockdown. Path analysis revealed that extraversion positively correlated with both technical and academic self-efficacy, while neuroticism was negatively correlated with both, leading to higher performance anxiety. These findings suggest that students with higher neuroticism may experience more significant barriers in online learning, potentially leading to lower self-efficacy and increased anxiety.

Dikaya et al (2021) also found complex relationships between attitudes towards forced remote learning and communication skills. They reported that students with either very high or very low communication skills did not perceive online learning as beneficial, whereas students with average skills did. They further noted that forced online learning technology use could be perceived as alienating, which might affect students differently based on underlying personality traits. While this evidence largely stems from studies conducted in response to the rapid, unplanned shift to online learning due to the pandemic, it supports the idea that psychological traits and behaviour patterns play a significant role in how students adapt to different learning modalities. It also highlights that individual differences in personality influence how students engage with and benefit from flexible learning options, especially under stressful or forced conditions.

Neurodiversity

The rhetoric of flexible learning often centres on accessibility and empowerment, but this narrative frequently overlooks the nuanced needs of neurodivergent students. Recent research has begun to examine how flexible learning environments impact neurodivergent students, particularly those with Autism Spectrum Disorder (ASD), Attention Deficit and Hyperactivity Disorder (ADHD) and other cognitive profiles (Le Cunff et al, 2024; Le Cunff et al, 2022; Adams et al, 2019). Adams et al (2019) conducted a systematic review of online higher education for students on the autism spectrum and found that while online learning can mitigate sensory overload and social pressures, it simultaneously creates new challenges. These include difficulties in interpreting online communication cues, navigating unstructured learning environments and self-managing without adequate scaffolding. The review suggests that although flexibility may reduce certain barriers, it does not equate to inclusivity unless paired with intentional support structures that account for neurodivergent needs.

More recent empirical studies highlight similar tensions. Le Cunff et al (2022) found that neurodivergent students often experience digital learning environments as both enabling and constraining. Their mixed-methods study reported that features such as asynchronous access and personalised pacing supported autonomy and stress

reduction, but these benefits were frequently offset by poorly designed interfaces, unclear expectations and limited tutor interaction. The authors emphasise the necessity of co-designing learning platforms and pedagogies with neurodivergent users to ensure accessibility is not simply bolted on but built into flexible education systems from the ground up. Building on this, Le Cunff et al (2024) argue that neurodiversity should be viewed not as a limitation to be accommodated, but as a vital perspective in shaping inclusive pedagogical design. Their findings suggest that universal design for learning (UDL) principles, which emphasise flexibility in how students access, engage with and demonstrate knowledge, are essential to making flexible learning genuinely inclusive. Yet they also caution that institutions often rely on reactive support (e.g. individual adjustments via disability services) rather than proactively integrating inclusive design into mainstream course delivery. This reactive approach may undermine the core promise of flexible learning through placing the burden of adaptation on neurodivergent students rather than on institutional systems.

Taken together, these studies challenge the simplistic notion that flexibility inherently benefits all students. For neurodivergent learners, the quality and structure of flexibility matters: poorly scaffolded or poorly designed options can amplify cognitive load and increase exclusion. As such, there is a need for institutions to move beyond minimal compliance and embrace inclusive, participatory design approaches that treat neurodiverse students not as exceptions, but as central to achieving equitable flexible learning.

Mental health

The mental health of students in flexible and online learning environments is an increasingly prominent concern, particularly in light of the expansion of distance learning models. Flexible modes may help some students manage their time and responsibilities, but they can also exacerbate psychological distress if institutional structures do not actively support wellbeing. For example, Jones, Samra and Lucassen (2023), in their study of online law students at the Open University, found that the mode of delivery played a more significant role in shaping students' mental health than the academic content. While students appreciated the convenience of distance learning, many also reported feeling isolated and under-supported. The absence of face-to-face contact with peers and tutors contributed to a sense of disconnection, while the demands of self-managing study alongside work and family obligations created additional emotional strain. These findings challenge the assumption that flexible learning is inherently supportive, highlighting instead the risks of emotional disengagement when learners are left to navigate complex study environments independently.

Lister et al (2023) reinforce this critique by showing that many of the mental health challenges students face are rooted in institutional design rather than individual vulnerability. Their research found that students frequently perceive academic systems as inflexible and unsympathetic with rigid deadlines, unclear expectations, and inconsistent tutor communication contributing to anxiety and disengagement.

While flexible environments can support wellbeing through autonomy and skills development, these benefits are not evenly distributed. Students with existing mental health challenges were more likely to struggle with assessments and workload, and often felt unsupported. The authors argue that mental health cannot be separated from curriculum and assessment design, and they advocate for a shift from reactive provision to proactive approaches that embed mental health awareness into core pedagogical practices. This aligns with a broader move toward a social model of mental health, which places responsibility on institutions to shape learning environments that are not only accessible but also psychologically sustainable.

This need for structural responsiveness is further underscored by sectoral insights. Minutillo, Cleary and Visentin (2020) note that rising enrolments in online learning have coincided with growing demand for psychological support, often outpacing institutional capacity. Without systemic reform, institutions risk reproducing the very exclusions that flexible learning is intended to mitigate. Structural barriers are also evident in the experiences of part-time, distance and commuter students. According to Frampton et al (2023), these students are frequently overlooked in mainstream wellbeing strategies, which are often designed with full-time, on-campus learners in mind. The assumption that greater autonomy reduces the need for institutional connection is misleading; in practice, flexible learners may face heightened risks of isolation and disconnection precisely because they are expected to self-manage without equivalent support structures. Addressing these disparities requires more than expanded services. It calls for a rethinking of how support, engagement and inclusion, including decision aids for choosing a study mode, are embedded into the architecture of flexible education itself.

In summary, personality traits such as extraversion, neuroticism, and conscientiousness have been shown to influence not only preferences for specific study modes but also anxiety levels arising from study in different modes and satisfaction with learning. These traits can either buffer or exacerbate stress in online or hybrid settings, suggesting that flexible learning designs must account for diverse psychological profiles rather than assume uniform adaptability. These studies reveal how mental health challenges within flexible learning environments are not simply due to individual student vulnerabilities, but are shaped by institutional design and support systems. If universities approach mental health as a matter of individual resilience rather than a structural responsibility, they risk reinforcing the exclusions that flexibility is supposed to redress. Instead, there is a need for strategies to be proactive and embedded in order to treat wellbeing as a core component of educational design. Addressing this requires a move toward pedagogical and institutional cultures that promote support in choosing a best fit learning mode in the circumstances.

8. Cultural and contextual influences

The choice of study mode is significantly shaped by cultural and contextual factors, including technological access, socioeconomic conditions and educational traditions. This is of particular importance as flexible learning programmes in UK universities are often marketed globally, especially those which rely exclusively on online delivery. Cultural and contextual factors influence how students interact with flexible learning models and their overall engagement with educational content.

Barriers to global flexible learning

Gocotano et al (2021) examine these challenges in the Philippines, where economic instability and lack of infrastructure create obstacles for students trying to participate in flexible learning. Their study underscores the need for institutions to adapt their flexible learning models to account for regional disparities, ensuring that students from these regions have the necessary resources to fully engage with online or blended learning. Zapata-Cuervo et al (2023) highlight how students' engagement in online learning is influenced by cultural and contextual variables across different countries. Alkhunaizan (2019) explores the cultural context of Saudi Arabia, where students' experiences with mobile learning are shaped by both technological access and cultural preferences. The study reveals that many students, particularly in rural areas, face significant barriers to online learning due to unreliable internet access and a lack of technological resources. These limitations, combined with a cultural preference for face-to-face interactions, often lead students to prefer traditional learning methods over more flexible online options.

Bervell et al (2024) examined student satisfaction and continuance intention in distance education programmes in Ghana. The study highlights how institutional and infrastructural factors within specific cultural contexts affect students' ability to engage effectively with online learning. Students in Ghana face challenges related to inconsistent access to technology and limited support systems, which can impact their satisfaction and persistence in distance education programmes. This study underscores the importance of considering local educational infrastructures when designing flexible learning systems, as the availability of resources plays a critical role in determining the effectiveness of these systems.

Cultural expectations and learning preferences

Cultural context plays a critical role in shaping students' learning preferences and outcomes. Zapata-Cuervo et al (2023) conducted a comparative study across the US, South Korea and Colombia, revealing that cultural attitudes toward education and varying levels of digital literacy influence how students perceive and interact with online learning. For instance, students from cultures that value face-to-face interaction in education may struggle with the impersonal nature of online courses, while those from regions with high digital literacy may adapt more easily to digital learning environments. The study demonstrates that learning mode preferences are deeply contextual and should not be generalised but tailored to the cultural and technological realities of different student populations.

Imran et al (2023) examine how the cultural and institutional context affects the effectiveness of blended learning in business management education, particularly post-pandemic. Their study shows that blended learning is highly effective in maintaining student engagement while providing the flexibility that many students need. The study points out that cultural factors, such as the value placed on in-person interactions and the expectations of academic rigour, influence how students engage with blended learning environments. This suggests that institutions need to understand the local cultural expectations when marketing blended learning to ensure it meets the diverse needs of students.

Valtonen et al (2020) explore the increasing demand for informal learning environments and flexible spaces in higher education. Their research shows that students' preference for flexible learning environments is influenced by cultural expectations about education and how learning is typically structured in their societies. In many regions, students are seeking learning environments that allow them to engage with educational content in more dynamic and interactive ways, such as through digital platforms and collaborative tools. This demand highlights the importance of designing flexible learning spaces that accommodate students' cultural and educational expectations, fostering active learning and collaborative knowledge building.

Contextual and social role expectations

Price Banks and Vergez (2022) showed how temporary contextual factors (specifically the COVID-19 pandemic) reshaped student preferences for online and in-person learning in a large public university in New York City. While many students cited flexibility and safety as reasons for choosing online formats, the study also found that face-to-face learning was still strongly preferred for certain disciplines, particularly in STEM fields. This demonstrates how external crises can prompt students to prioritise convenience and accessibility over interactivity, even if their long-term preferences align more closely with in-person engagement. It also underscores the importance of recognising that preferences are not static but often shaped by shifting personal, institutional and societal conditions.

Veletsianos et al (2021) further complicate this picture by showing how temporal flexibility interacts with gendered social roles. Drawing on interviews with female students during the COVID-19 pandemic, the study reveals that asynchronous learning can extend the working day and heighten role conflict for those juggling caregiving and academic responsibilities. Instead of offering relief, flexibility sometimes imposed new pressures, reinforcing rather than reducing inequities. The authors argue that flexible learning is not experienced uniformly and must be understood as a socially situated practice shaped by cultural norms and unequal burdens of care. These findings highlight the importance of designing flexible systems that take into account how students' social roles and domestic contexts affect their ability to participate fully in self-paced or asynchronous formats. Veletsianos et al (2021) show how socioeconomic and technological factors can

create a divide in students' ability to fully benefit from flexible learning environments, necessitating greater attention to digital inclusion in educational policy and practice. On the whole, cultural and contextual influences are essential considerations when designing and implementing flexible learning systems. Socioeconomic factors, technological access, educational traditions and cultural values all play a significant role in shaping how students engage with and succeed in online, blended or face-to-face learning environments. As demonstrated by these studies, understanding and addressing these contextual factors is crucial for creating inclusive, equitable and effective flexible learning models that meet the diverse needs of students from varying cultural backgrounds.

9. Conclusion

This critical literature review aims to problematise the notion of flexible learning choices as a matter of convenience. There are multiple student characteristics which impact on a choice between different modes of learning. Whilst practical issues, such as distance from the institution, personal responsibilities and temporal flexibility may all be important factors in choosing a particular mode of study over another, students may want to consider a broad range of factors associated with motivation, engagement and ultimately satisfaction and academic success. This includes psychological traits, mental wellbeing, cultural and contextual factors which can impact on how an individual may adapt to a particular mode of learning. Whilst institutions and educators clearly have a role in ensuring that students are supported in developing skills they need to succeed once a mode of study has been chosen, there is also a case for empowering students to make the best choice of study mode in the first place.

True flexibility requires institutions to move beyond a focus on convenience as the selling point of flexible learning and instead prioritise student agency, empowerment, autonomy and support. Clear communication for enabling students to make informed decisions about how optional learning modes align with their personal profiles is essential for maximising the benefits of flexible learning. Students can become active participants in shaping their own flexible learning journeys if institutions and educators adopt a nuanced approach to their flexible learning offerings and provide prospective applicants with sufficient information to make well-informed choices. This should include consideration of aims and educational goals in terms of learning outcomes, consideration of factors such as personality and mental health, skills profiles and digital proficiency, personality characteristics, neurodivergence some of which may be more important to some individuals than others. These insights underscore that truly effective flexible learning must go beyond surface-level accessibility, embedding psychological inclusivity, intentional design and institutional responsibility to support the diverse needs of all learners. In essence, flexibility in learning should prioritise student agency and empowerment, ensuring that students

are not just passive recipients of flexible learning opportunities, but active participants in their own educational journeys.

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