

HyFlex in Higher Education: Perspectives from Heads of School at Technological University Dublin.

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Abstract.

Using a qualitative methodology, this paper provides managerial insight into the use of HyFlex as a teaching paradigm in the era of post-Covid university education. Previous studies have focused on the perception, benefits, and challenges of using HyFlex from the perspective of students and academic staff. However, as decisions to implement delivery mechanisms in education often revolve around administrative and infrastructural resources such as timetabling and technology requirements, Heads of School need to be supportive of HyFlex for implementation to be effective and efficient. Twelve of twenty-five Heads of School across all five Faculties in TU Dublin were interviewed.

It was found that a degree of definitional ambiguity existed among the Heads of School regarding HyFlex. While there was broad support for this mode, recognising provision of flexibility and new market opportunities, concern existed around technology and training, an increased workload for staff and the loss of the unique position held by TU Dublin in providing a face-to-face educational experience. It was deemed that HyFlex may be more appropriate for the latter years of undergraduate programmes and post-graduate degrees as well as broadening accessibility to international markets. Critical to implementation is appropriate resource allocation, training, and support.

Keywords: Heads of School; Higher education; HyFlex; Modalities; Post-COVID-19.

1. Introduction.

While HyFlex has been offered to students successfully worldwide for almost a decade now (Beatty, 2019), for many universities and academics (teaching staff) it was COVID-19 that brought this mode of delivery to their attention as they sought to deal with situations where many students were returning to college, but others needed to stay at home to isolate. During the COVID-19 lockdown, academics quickly pivoted to online learning. Now, they face a more complex challenge: managing both in-person and online attendance while meeting students' growing demand for flexibility. As Grajek (2020) explains, educators must now decide which practices to restore, which to adapt, and which to completely transform. There has been a surge of research output on HyFlex with the highest rates of publications on this topic being between 2019 and 2021 (Eduljee et al., 2022). Much of this literature focused on the challenges and benefits of HyFlex (e.g. Beatty, 2019; Rhoads, 2020) and the experience of teaching staff and students (e.g. Boylan et al., 2022; Kohnke & Moorhouse, 2021; McKay, 2019).

While students and academics are key stakeholders, another stakeholder group that has been somewhat overlooked are Heads of Schools. Heads of Schools are often the decision makers on the ground within a university regarding the implementation of HyFlex and the allocation of resources. '*Heads of School*' in this paper refer to middle managers that operate within each of the five Faculties at Technological University Dublin (TU Dublin), a publicly funded university located in Dublin, Ireland. This paper seeks to address this research gap by focusing on this group and asking key questions about their understanding of HyFlex: what they perceive as the challenges and benefits/value of HyFlex, what they feel the university could do better to support them in taking a HyFlex approach to delivery in their school, and what they see as the future of HyFlex at the university. This research was undertaken within the context of TU Dublin's first Strategic Intent 2030, which states that "*we are committed to creating transformational educational opportunities that inspire, support and develop the individual in reaching their full potential*" and that, through creating pathways for all, we are committed to "*ensuring flexibility in structure, mode and place of delivery to suit an evolving global landscape*" (TU Dublin, 2020). This makes this research particularly timely from the institution's perspective.

2. Literature review.

'*Hybrid-Flexible*' (HyFlex) is an instructional approach first established by Beatty in 2006/7 with student flexibility and choice in mind, by supporting students who wish to make personal decisions about how best to participate in their chosen course of study. The approach can enable a module, or full course of study, to be offered in-person on-campus; synchronously

online; and asynchronously online, at the same time, allowing enrolled students to choose their modality from week to week or topic to topic as needs be. The element of choice in combination with teaching, learning and assessment experiences designed and delivered in an equitable manner, are central tenets to this instructional approach (Beatty, 2019). It is this element of student choice over the environment in which their learning takes place that distinguishes HyFlex delivery from Blended delivery.

There are both benefits/value and challenges to implementing the HyFlex instructional approach. From the student perspective, flexibility is reported as the key documented benefit. Several studies have found that students appreciated having the choice of modalities (Kohnke & Moorhouse, 2021; Liu & Rodriguez, 2019) and often respond and engage well in HyFlex courses (Malczyk & Mollenkopf, 2019). Flexibility of choice can give students “*a sense of safety and control over their learning*” (Kohnke & Moorhouse, 2021, p. 238) and as a result can have a positive impact upon their perception of learning and their overall student experience (Rhoads, 2020). For students who are unable to attend class due to illness or caring responsibilities, or indeed even due to scheduling conflicts with their part-time employment (Kohnke & Moorhouse, 2021; Malczyk, 2019), participating remotely is much more beneficial than missing class. However, some recent studies suggest other students might choose online for the wrong reasons or lack the self-regulation or time management skills to be successful in the HyFlex environment (Alhazbi & Hasan, 2021; Raes et al., 2020). Green (2021, p.119) found that attendance choices can affect a student’s self-reported engagement, coursework participation and examination performance. Their findings ‘*indicate a potential loss of learning in the absence of a face to face lecture component*’ while others have suggested a negative impact upon the completion of assignments, obtaining and retaining information (Foust & Ruzybayev, 2021).

According to Beatty (2019, unit 1.2), academics “*typically report that their ability to better support students who need alternatives to one-size-fits-all instruction is a highly-valued benefit with HyFlex*”, and Raes et al. (2019) suggest that compared to fully online or fully onsite, HyFlex provides a more-flexible and more-engaging learning space. The effective use of virtual classroom software and, in particular, good quality audio has been found to be important in creating a sense of presence within the online environment (Sanchez-Pizani et al., 2022). In addition, the use and design of activities within the interactional space where materials are shared, and the two groups engage, are critical for keeping students' attention and helping to build a sense of community across the class as a whole (Detyna & Koch, 2023).

Keeping students engaged both face-to-face and online can be a challenge. Kohnke and Moorhouse (2021) suggest that various tools should be used to increase student engagement including linking students joining remotely with those engaging face-to-face, but this does

require additional time on the part of the academic staff member to set up and manage. Although HyFlex was recognised by Malczyk (2019) as a method which provides greater student autonomy. He and others (e.g. Dawkins, 2022) also recognised that HyFlex requires more planning and preparation by academics with Detyna et al. (2022) highlighting that delivery using HyFlex is associated with a high cognitive load for staff. However, Baker (2022) notes that employing two teachers or teaching assistants, a strategy advocated by Hagemeyer and Dolfin (2022) and Cheng et al. (2023), can help mitigate challenges such as staff cognitive load. For students who are easily distracted by noise or prefer to learn at their own pace, HyFlex offers the option to participate remotely in a quieter environment, which can help them concentrate better. This flexibility may also allow academics to dedicate more time and attention to students who require personalised support and guidance. Such an approach can have potential noticeable learning gains for both groups of students (Beatty, 2019).

During the COVID-19 pandemic, the HyFlex approach provided higher education with a viable option for delivery in the context of social distancing, restricted lecture size and the accommodation of students and their families who were most at risk from the virus. This resulted in academics making rapid decisions about changing their teaching and assessment approach. However, Mottiar, Byrne, Gorham and Robinson (2022, p. 2) suggest that *“as the emergency situation abates, the usual management systems and procedures have re-emerged, and this has the potential to have a significant impact on how academics proceed”*. Nevertheless, Stephenson and Torn (2022, p. 10) counter that *“HEIs will have to deal with the legacy of the pandemic on students' expectations of what university learning is, with a mind shift required for both students and staff”*. Baker (2022, p. 4) states *“optimistically, it seems that a future that retains a degree of flexibility in the form of hybrid or HyFlex, or even fully online, programming will become the expectation of modern higher education”*. This view is supported by Benito et al. (2021, p. 69) who believe *“the future of higher education is hybrid modes of instruction... [there is] now a more favourable context to spur a more effective approach to education that can ideally result in broader access and more effective learning”*. In moving forward postCOVID-19, Rapanta et al. (2021, p. 715) highlight the importance of *“strategic decision-making”* in higher education to ensure a focus on *“pedagogisation”* rather than just the technology. They go on to say that *“Faculty teachers are not always the ones who make the decisions regarding curriculum and assessment design. Careful strategic planning on the part of the HE institutions is now more necessary than before”* (p. 735).

As identified by Garcia-Morales, Garrido-Morena and Martin-Rojas (2021, p. 6) post-COVID-19, universities are presented with an *“unprecedented opportunity for the transformation of higher education at a global level”*. This will not be without challenges and barriers and Garcia-Morales

et al. (2021) advocate the greater use of training and support (Li et al., 2022, p. 272) for academics and all stakeholders, yet it has become evident that without middle management buy-in, such support and the “*great promise*” (Larsen et al., 2021, p. 225) offered by HyFlex delivery may not be forthcoming. Larsen et al. (2021, p. 228) also note that a holistic and collaborative approach, or as they note “*seamless teamwork*”, is required to achieve effective HyFlex delivery. Management support for academic involvement in HyFlex delivery was evident in Puhr and Germanier’s (2023) recommendations also, and similarly Penrod (2023) proposes a pan-institutional approach to flexible delivery.

In the literature (Black & Elazier, 2022; Roberts et al., 2022), strategies for HyFlex refer predominantly to those within modules or programmes and are implemented in the main by academics, yet these decisions are often being made within the broader context of school and university strategies that may support, enforce or actively discourage such modalities. Furthermore, national policy or guidance from Higher Educational bodies may also play a role. So, while the literature to date has focused on local strategies and cases, this paper focuses on Heads of School, another important, but less considered, stakeholder in this process who will be key stakeholders and gatekeepers in determining the future of HyFlex.

3. Methods and Methodology.

Data gathered at TU Dublin in early 2022 showed that there is a strong appetite among both academic staff and students at the university to continue engaging in some form of flexibility around mode of delivery (Boylan et al., 2022). However, the data gathered during that study did not include the opinions of staff in middle management roles (Heads of School) in respect of HyFlex delivery into the future. The need to explore how a university could move from practice to policy and the potential benefits and challenges involved in embracing this highly flexible mode of delivery, acted as a catalyst for this current research study and the proposed methodology for this paper.

According to Hopkins, Regehr and Pratt (2017, p. 20) “*dealing with educational issues more appropriately involves understanding the perspectives of individuals engaged in the education process rather than searching for the “right” way to do it*”. On this basis then, Heads of School at TU Dublin were the chosen target group for this research given their responsibility and capacity as decision-makers in relation to how each School operates, is staffed, and delivers programmes. The essence of this paper is to provide a deeper understanding of the knowledge and perspective of those Heads of School involved in a decision-making role relating to the

delivery of programme modules in TU Dublin, particularly in relation to the use of HyFlex as a mode of delivery.

This research uses an interpretivist paradigm underpinned by social constructivism whereby reality is derived from meaning and understanding, and meaning is constructed through social contexts and experiences (Saunders et al., 2012). To explore the present situation regarding HyFlex delivery at TU Dublin the Heads of School were asked, based on their own experiences, about their understanding of HyFlex as a mode of delivery; the perceived benefits/value to students and academics; their support for it; and the future of HyFlex as a mode of delivery in TU Dublin. The specific research questions were as follows:

- RQ1: What is the academic manager's understanding and experience to date regarding HyFlex delivery?
- RQ2: What do Heads of School consider the benefits/values of, and challenges of, HyFlex teaching and learning at TU Dublin?
- RQ3: Is this mode of delivery supported by Heads of School?
- RQ4: What is the future of HyFlex in TU Dublin with a specific reference to decision and policy-making?

The process of interviewing sought to be passive with researchers posing the same set of questions. The positionality of each researcher was considered in light of their role within the university and in terms of both positive and negative influence on the research process. Four of the researchers have a lecturing role with many years' experience working in TU Dublin, and two of the researchers are experienced professional services managers in the areas of teaching and learning. As it is acknowledged that no qualitative research can be value-free, a researcher's experience and knowledge will influence primary data collection and analysis. Positionality is defined by Savin-Baden and Major (2013, p. 71) as "*the position a researcher has chosen to adopt within a driven research study*". Considering and establishing the positionality of the researcher with regards to their ability to influence the research, the relationship with the participant and the research context (Holmes, 2020), and incorporating mitigating measures to minimise this influence, ensures a more objective stance. As interviewing tends to be an interactive process from which there is the construction of knowledge and meaning (Langley & Meziani, 2020) and interpreted from a subjective stance, the researchers did not interview within their own School or interview any academic manager that they knew. This contributed to the mitigation of issues that could impact the epistemological foundation of the research.

This research was conducted utilising an inductive approach primarily. As literature and findings from previous research conducted by the team to ascertain student perspectives (Boylan et al., 2022) informed the research objectives and questions, an element of deduction is evident. Both semantic and latent open coding was used to generate the codes and themes evident in the data. Each theme was then analysed providing four separate narratives relating to the four research questions. Although the process was informed by the six stages of thematic analysis (Braun & Clarke, 2006), several other stages were included to increase validity and mitigate any potential biases.

Ethical approval was sought and granted by the Research Ethics Committee at TU Dublin for the work (Ref 15/13). The request to take part in this research was emailed to each of the Heads of School at the university by one member of the research group. A participant information sheet and a consent form were attached to that email. No interview took place until a signed consent form had been returned by the participant.

Table 1 illustrates a staged process adapted from Domegan and Fleming (2007).

Table 1: The process of research.

Stage		Applied to this Research	
1	Research aim	To provide a deeper understanding of the role of academic decision-makers in relation to the knowledge, support, benefits/value of and challenges of HyFlex delivery at TU Dublin with a view to moving from practice to policy.	
2	Choice of Tool	Semi-structured interviews	Guided by an interpretivist primarily inductive paradigm rationalised by the need to gather greater depth of knowledge
3	Develop a series of research questions	Based on previous research, Boylan et al. (2022) and consideration of UEM (University Education Model) at TU Dublin	
4	Develop questions around a number of themes	17 questions developed around literature and themes that emerged from the student and academic surveys	

5	Sampling	Purposive: 25 Heads of School across all disciplines (Arts, Humanities, Science, Technology, Engineering and Maths)	Criteria: participant must be a Head of School, making decisions in relation to School operation, staffing and module delivery
6	Execution of Primary Work	12 (R1-R12) agreed to be interviewed	Researchers did not interview within their own school to mitigate pre-conceived and subjective understanding (epistemological
		Two interviews per researcher with average time of 60mins/interview Recorded using password protected recording device Transcribed using Otter.ai	consideration: researcher relationship with institution influencing mediated reality)
7	Data Analysis and Interpretation	Data cleaning: transcripts reviewed and checked by each researcher removing any evidence of recognition	Confidentiality Researchers were only aware of the identity of their own transcripts thus contributing to the anonymity
		Alignment of themes by researchers	Undertaken to test consistency in terms of interpretation between researchers thus strengthen validity

	<p>4 key themes generated applying Thematic Analysis (Braun & Clarke, 2006)</p> <p>Understanding; challenges and benefits/value; support; future of HyFlex</p>	<p>As primarily inductive, a literature review was undertaken based on the themes generated</p>
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The limitations of the research are acknowledged. There are 25 Heads of School in the university, so this research represents the voices of only half of them. While there was reasonable consistency across these interviews there may have been other views that weren't represented by our participants, and this may impact on the key findings.

Another important consideration for the research team was their status as insiders, since they were studying the perspectives of Heads of School within their own institution. While this approach supported the development of deep knowledge and understanding in line with the interpretivist perspective, a careful balance was struck by implementing deliberate strategies to mitigate any potential limitations related to the researchers' positionality.

4. Findings and Discussion.

The previous sections have set the scene regarding secondary research on the merits and implementation of HyFlex delivery and the research approach to gathering primary data for this paper. This section presents the findings from the twelve interviews and analyses them in relation to the literature review. This integration of findings and discussion interweaves the heretofore undocumented views of Heads of School with the existing knowledge on HyFlex in higher education.

4.1 Understanding of the HyFlex mode of delivery among Heads of School.

While all twelve interviewees were very familiar with the kinds of emergency accommodations that had been made for students by their academic staff post-COVID-19, collectively, the Heads of School felt that the ongoing provision of these kinds of accommodations constitutes HyFlex as a distinct mode of delivery going forward. Some of the interviewees described HyFlex delivery as “*a backup*,” (Respondent 5), for students who missed class and who could catch up with the recording in their own time instead (R6, R8). Two interviewees (R8, R12) also mentioned the lack of interactivity and engagement for students who participate asynchronously, indicating a partial misunderstanding of the core principle of mode equivalency. Three of the twelve interviewees were unhappy with asynchronous attendance being an attendance option for students preferring to limit attendance instead to forms of synchronous attendance only (R2, R8, R12), with one interviewee going so far as to dispute the inclusion of asynchronous attendance entirely (R1), a perspective that contradicts the fundamental flexibility that this delivery mode provides to students.

During the interviews, it became clear that there was not a comprehensive or shared understanding of the core flexible arrangements that define a true HyFlex classroom in relation to learner choice regarding time and location, and the requirement that all students have an equivalent learning experience, regardless of their mode of attendance. This stance could be explained partially by the fact that these managers have had very little, if any, personal experience of HyFlex teaching and learning in practical terms. Although interviewees were not explicitly asked about their personal classroom experiences, six participants (50%)

acknowledged that they had never planned or taught a HyFlex class themselves. Instead, their responses were based solely on discussions with colleagues (R1, R5, R6, R9, R10, R12). This situation is somewhat problematic as it appears that the lack of a shared understanding of HyFlex delivery may extend beyond this sample of managers. Academics, led by their Heads of School, will play a hugely important role in embracing HyFlex delivery, specifically at TU Dublin as we work towards embedding the new model of education that provides for flexibility in structure, mode, and place of delivery to suit an evolving global landscape. This new model of education will also deliver a digitally enhanced student learning experience, as per the university's strategic objectives. Additional education will be required for all staff involved in this mode of delivery. This research highlights the need for additional strategic supports provided for Heads of School, specifically to help them lead this change. Some suggestions as to what this support might constitute are covered in a later section of this paper which also discusses the future of HyFlex.

4.2 Benefits/value of HyFlex mode of delivery.

Overall, the Heads of School interviewed could see that there was a benefit/value to engaging with the HyFlex mode of delivery in their School and across the university (R6; R11), particularly around the retention of students who were experiencing issues finding accommodation in Dublin, who had travel difficulties, or who had other competing responsibilities (R3; R6; R10; R11):

I think there's a lot of value. I mean, I'm sure you're aware that a lot of our students are commuting, you know, because they can't afford to live in Dublin. And so, offering some HyFlex, I think, would make us attractive as a university, to people who are looking to the realities of living in Dublin (R6).

It was also felt that learning in a flexible environment would help their students develop skills that they would need in the workplace.

Because we haven't formalised it, it's hard to see what the benefits would be, I would expect it enables an engagement in a different way with students. And it's helping them to develop a skill, which they're going to need for working with virtual teams, if they're in an international environment. So, it would very much benefit the student from that perspective (R2).

Providing flexibility in delivery was also acknowledged as a benefit to some students who need to have a part-time job in conjunction with attending university (R2; R3; R9; R11; R12), a point also recognised in the literature (Malczyk, 2019; Kohnke & Moorhouse, 2021).

The interviewees were unsure if their academic staff really wanted to engage with another mode of delivery but did acknowledge that there is a need to know how to provide this service:

I think, in an ideal world, most lecturers would prefer to have all of their students in front of them in a class. That's what they would prefer. But I think...there's a reality there, that, you know, they need to provide this as a service (R8).

Respondent 8 also indicated that one programme in their School is now delivered via HyFlex to tackle falling student numbers, thus indicating that HyFlex delivery may be a welcome solution to a wider problem.

Given that TU Dublin is spread across multiple campuses on different sides of the city at significant distance from each other, the interviewees also reflected on how the HyFlex mode of delivery could help schools to offer a range of modules and programmes across locations;

It is really a cross campus evolution of programmes, I can't see any way by which we will continue as a three-campus school offering, you know, having unique or single campus offerings... we need to begin to offer elements of programmes, if not full programmes, across all three campuses, at least across two of them. And, and I think really HyFlex is the only way we're going to be able to achieve that (R4).

In economic terms, additional income, cost-savings and attracting an additional cohort of students such as Erasmus and international students (R3, R5, R9) and those from industry looking to engage in continuing professional development (CPD) (R6), is seen as attractive to the university. However, according to R1, although revenue may be generated, there is potential for the quality of education to be lost, indicating that an evaluation of benefits/value and challenges is required in order to achieve a balance.

4.3 Disadvantages and challenges of HyFlex.

While both interview feedback and the literature highlight clear benefits of HyFlex delivery, some interviewees expressed concerns that students might misuse this modality (R11). For example, although some students may enjoy HyFlex and consider it "the easiest form of attendance" (R7), they may still fail the module (R5). Respondent 5 also noted that success in HyFlex courses

requires discipline and self-regulation, qualities that not all new undergraduate students may possess. This feedback reflects previously published research (Alhazbi & Hasan, 2021; Raes et al., 2020). There were also some musings around whether or not the student would realise what they were missing out on if they were not experiencing face to face delivery at all (R10).

I would have been quite open to the whole idea of flexibility.... But it was interesting in talking to students, and in talking to lecturers, there was a feeling that there was something lost because of that, because that college experience of being here, being with your friends, talking to them after the class, sitting and having coffee in between classes, that was gone (R10).

For these reasons, amongst others, respondent 8 thinks that 'it will be resisted for undergraduate education for quite some time'.

Similar to other universities who have little history of online delivery and live lecture recording, teaching spaces at TU Dublin are not typically set up for recording and/or multimodal delivery and engagement, and this poses a challenge for academics and their managers. According to the interviewees, their teaching staff found HyFlex delivery difficult during the COVID-19 period:

Some of the lecturers really, really hated it, because they found ... the set up difficult. They found they were catering for the students online and not the students in the classroom. And we need a level of AV support that we just don't have in TU Dublin (R12).

Respondent 2 listed the managerial challenges associated with supporting this delivery mode as "ensuring that the technology is kept up to date, that there's budget there to support the technology, that there's people there dedicated to support the technology, and that staff are getting the training support that they need to be able to do it" (R2). For these reasons, some Heads of School interviewed felt that the largest challenge for them is "getting staff on board with it" (R3), and "convincing staff to use it" (R5) because there is "a reluctance to change" (R1).

While the ability to increase the number of registered students at the university is of financial benefit, failure to provide a quality learning experiences for them may affect their progression, overall student retention, and the reputation of the module, programme and university.

[A] few years ago, you would have said, well, it allows us to get a much bigger pool of students, because we'd be doing something that's a little bit different. But it's not really anything different now. It's just a question of how well it's done (R4).

And when it works, then it is so good, when it works badly, it's not just a bad learning environment is bad for the lecturer, ... it's bad for the students who are not there, it's bad for the students who were there. It's a negative for the school, it's negative for our reputation (R12).

Many TU Dublin programmes are known for the practical element of their curriculum, and the interviewees felt that achieving equity via the HyFlex mode is difficult for these elements, saying:

We can identify subjects that, you know, would work in this model, but a lot wouldn't (R6).

HyFlex just wouldn't work in that practical environment... I don't think that people really have much of an appetite apart from the more theoretical modules for HyFlex (R10).

Administrative challenges for Heads of School around supporting HyFlex were also raised such as class scheduling for mixed delivery. Respondent 7 made two comments in relation to this saying:

An inconsistent model generates quite a number of problems. One is that if a student chooses, in one module to take an online version of a class, then they're unlikely to travel to the next module, which isn't HyFlex (R7).

It's just worth reinforcing that consistency is important that if we deliver it, and we offer it, we have to offer it for all of the modules in a particular year. So, people have to have the ability to go from one class to the next in a HyFlex mode. And if we don't do that, then we're impacting our own attendance (R7).

4.4 Management support of/for HyFlex.

Given that managers play a key role in designing programmes, providing guidance, allocating resources and operationalising policy (Roberts et al., 2022), managerial support for HyFlex within the university is critical if it is to be successfully implemented. The data gathered via these interviews with a sample of twelve Heads of School in TU Dublin suggests that support for HyFlex is somewhat mixed. At one end of the spectrum, R11 is very supportive saying “...the opportunities are massive. We're very keen to be doing more of it, and very interested in how technology can be this kind of assistive element within learning” (R11), and R1 said “there are instances in which I could see this work”. However, a degree of hesitation is evident with R11 acknowledging that this needs to happen slowly:

To expand what we're doing, but without creating a negative perception, because it can die on the vine. I don't want to do something early and if it doesn't work, it'll take me three years to recover.

A number of the respondents also echoed this concern, with respondent 8 questioning whether they should hold back because they fear that the student learning experience would not be equitable or do their best with what they have to work with at present:

We don't have the facilities to provide a really high quality.. experience for students, it should be just as close an experience as the people who are in the classroom. I would have the sense that that's just not possible. And so do we not do it at all? Or do we do it in a way that we can do it? (R8).

R9 was concerned on behalf of their academic staff indicating their fear of increased class size:

...as I said, the practice, the experience was quite different... I would say, there's a lot of concern amongst lecturing staff around these modalities... there's very little detail... to what the modalities are, and those fears around increasing class sizes (R9).

On the opposite end of the spectrum as indicated under challenges, two interviewees are adamant that HyFlex should never be a mode of delivery for undergraduate degrees in their school (R5; R10), feeling that students new to college, and often part of a large class need closer monitoring in the early years. R10 also reports a change of heart with regard to the use of HyFlex now feeling that the face-to-face element of university life is too important to miss out on. Many of the interviewees suggest that maybe HyFlex could be introduced to students “as we see the learners mature” (R7) and are more capable of “self-education” (R7) and “independent learning” (R8). Other interviewees could see benefits of using HyFlex for postgraduate or part-time programmes in particular, as R10 highlights:

For certain cohorts, I think it should, for other cohorts, I think it shouldn't. So more mature students, part-time offerings, things like that, I think yes, it'd be ideal. Your CAO entrants coming into first year in university I think no, it shouldn't be the main modes of delivery (R10).

R12 is more reticent:

In respect to full time programmes - is that unless it is for pedagogical reasons, and it works really well for a particular lecture for a particular subject, it should be avoided as a policy and that would be my view based on the experience.

R4 indicated that really at the moment there's a push to return face to face saying "once we began to get over it [COVID-19], then there's very much a push of, well, now we need to be back in person...and ... I suppose, a reluctance to say that we're going to continue with online."

Although general support for HyFlex was voiced by many of the Heads of School, this often came with caveats such as the need for further technical resources (R3; R11), better facilities (R10) including infrastructure (R2, R5), and consideration of its impact on the quality of education (R7), requirements that concur with much of the literature in this area (Baker 2020; Detyna et al., 2022; Li et al., 2022). Larsen et al. (2021) surmises that unless support is made available, HyFlex will not achieve its promises. Concurring with Baker (2020), the respondents identified that managing the additional workload (R3) is essential. The need to provide academic staff with training, access to the required technology and VLE (R2) and use of (instructional/teaching) assistants (R4, R8, R9, R12) is endorsed by Hagemeyer and Dolfing (2022) and Cheng et al. (2023) as a necessity to mitigate challenges to work overload. Detyna et al. (2021) suggest that support should be provided for at all levels and include Learning and Support units. However, to provide supports, especially to those who are new to delivery, significant resource allocation is critical (Romero-Hall & Ripine, 2021). Baker (2020) also advocates the use of a Community of Practise (CoP). A HyFlex CoP was established in TU Dublin in June 2021 and, at the time of writing, has 181 members. Meetings are held every five weeks to showcase best practices and collaboratively address shared challenges.

Finally, the questions posed during the interviews sparked some reflection around the role the interviewees could, or should, be playing as Heads of School in the adoption and development of HyFlex:

Now that you've sort of asked me these questions, I realise that there is a bit of ambiguity there about its application. Even though I might be very positive about [it] myself, I'm probably not promoting it. And probably what I should be doing is saying, "Well, are there cases where we should be doing HyFlex", and then speaking to staff or speaking to groups of staff or programme and sort of say, "well, look, surely we could do this HyFlex, as well?" And it's just, it's just with everything, I haven't moved in that direction (R4).

Respondent 11 also notes that “a school-level intervention is never going to work unless it's to support things that are already there.” In their opinion, the best way to implement HyFlex is to further involve academic staff who are already engaged in this area by providing them with additional resources. This, they believe, will help generate interest among other staff members and allow the initiative to expand gradually. Another respondent reflects on what we do well as a university and questioned whether moving away from the kinds of delivery that we are known for might damage our reputation saying:

I don't think that we necessarily want to be the university that just churns out students who haven't necessarily had... what makes us unique as a university at the moment, which is a really good hands-on student experience, that's what makes that our unique selling point as a University (R10).

In terms of policy, contrary to the belief held by R12 that a policy around HyFlex should be avoided, R6 believes that the university will develop policy around this modality though this will require definition and clarity:

I think that when the university creates a policy, there has to be a way whereby it's not too dictatorial in terms of you must do this. But I think within the policy, it probably would need to clearly define the various terms and aspects available for a student, synchronous and asynchronously, you know, what are the reasonable expectations (R6).

5. Implications, Conclusion and Recommendations.

Post COVID-19, HyFlex is now perceived by many institutions either as a necessity or a strategy they will continue to leverage to survive and even thrive (Pelletier 2023, 31). It is generally acknowledged that there are both benefits and challenges of implementing a HyFlex approach (Kohnke & Moorhouse, 2021; Liu & Rodriguez, 2019). The following summary observations from this research have emerged relating to the future of HyFlex at TU Dublin:

5.1 Develop a shared understanding.

There was general support voiced by many of the managers interviewed in this study, however, there was no shared understanding of what constitutes a HyFlex mode of delivery. A full understanding of flexible arrangements around learner choice and the equivalency of face to

face and on-campus learning experiences was lacking in many instances and should be addressed within the provision of appropriate guidance materials for staff and students

5.2 Evidence an institutional commitment.

Heads of School do not always actively promote HyFlex as an option preferring to leave staff to make decisions around modalities related to class size, composition and level of experience. It was felt that an explicit institutional commitment underpinning the development of an implementation framework to guide the provision and support of a high-quality HyFlex learning experiences would be important to catalyse a shift in the use of different modalities across the University.

5.3 Support a need for clear roles and responsibilities.

An enabling policy to support rather than discourage the use of a quality HyFlex mode of delivery across selected programmes with delegated roles and responsibilities was recommended. Any such policy should be negotiated within individual schools to take into account staff workload, the provision of appropriate staff and student training and an investment in technology infrastructure and well-equipped rooms.

5.4 Adopt a strategic approach involving all stakeholders.

Managers indicated that support at university level is crucial, that there is a need for consultation and based on student feedback and results but that the decision-making process should lie with the programme lead and Head of discipline. There was concern in relation to the parity of the HyFlex synchronous online/face to face learning experience of students and it was felt that currently practical issues were detracting from achieving the potential benefits of HyFlex and should be suitably addressed.

5.5 Provide a continuum of support across a programme.

There was some concern about HyFlex becoming the norm across all programmes with some feeling that it should never be offered as an option on Undergraduate programmes. There was a common perception that students would not have the agency and self-regulation to be able to manage their learning within a HyFlex modality. Closer monitoring of students in the earlier years

should be used to identify students who might not be engaging fully, and the appropriate supports put in place, if necessary.

5.6 Maximise the longer-term potential benefits.

Managers recognised that for many students unable to attend class through e.g. illness or caring responsibilities, participating remotely is the only way that they can engage within class activities. They also felt with an appropriate allocation of institutional resources, HyFlex could open up new student markets, help establish new partnerships and provide engaging new learning spaces to enrich the experience of an already diverse student population.

This research is important because it gives voice to an important stakeholder in the HyFlex debate. These Heads of School can influence university policies, but they also implement these policies and are directly responsible for the academics and students engaging with HyFlex. Therefore, it is important that an understanding is gained of their views and perspectives. This research has firstly shown that there is a wide range of knowledge, understanding and views about HyFlex among the Heads of School across the university, and so it might be expected that the operation of HyFlex will differ by school and faculty. For some, the concept of HyFlex is mainly associated with its use during COVID-19 to address specific circumstances, rather than being recognized as a pedagogical approach intended to be a part of the university's teaching toolkit moving forward. In some cases, there is also a lack of understanding of exactly what HyFlex is. As flexibility in structure, mode and place of delivery, which includes HyFlex delivery, is anticipated at our university, this research clearly identifies a need for greater understanding among Heads of School of this form of delivery.

While much of the literature has examined the benefits and challenges of HyFlex from the perspectives of students and academic staff, this research highlights that Heads of School also recognise the flexibility HyFlex offers to students. However, they express concerns about its potential effects on student engagement, attendance, and retention. As a result, most Heads of School consider HyFlex appropriate mainly for postgraduate, part-time, and possibly final-year undergraduate students, but not for those in the earlier years of their programmes. These findings are significant: if universities set general guidelines for HyFlex but leave some decisionmaking to individual schools, HyFlex offerings are likely to remain concentrated in part-time and postgraduate programs.

During the COVID-19 crisis, decisions about which pedagogies to use were largely made by individual lecturers. In the post-COVID period, however, traditional strategic planning and quality control processes have resumed, meaning that university management will now play a fundamental role in shaping the future development of HyFlex. Heads of School at TU Dublin, are conscious of the need for effective support for academics using HyFlex and the extent of resourcing needed for this approach to be effective. It is also clear that certain discipline areas are less suited to this delivery model. Furthermore, the manner in which the multi-modal delivery approach is introduced plays a crucial role in gaining support from academics, while ensuring that pedagogical decisions remain within the schools and programmes.

The need for an institutional framework to guide responses to changing digital landscapes has been well documented (see e.g. Adekola et al., 2017). Rapanta et al. (2021) propose that careful strategic planning is required by a Higher Education institution in relation to the implementation of HyFlex. This is occurring at TU Dublin with the establishment of a working group to map and drive the implementation of the digital education policy. It would also be useful to capture feedback from those who are part of wider educational provision such as information technologists, teaching and learning staff, librarians and learning support personnel, all whom are crucial for the institutional adoption and success of HyFlex delivery. However, this research reveals that Heads of School—who will be responsible for implementing these policies—are expressing concerns and advocating for a cautious, gradual approach. This contrasts with the university's strategy, which involves rapidly equipping classrooms and moving forward with plans for a multi-modal delivery model. While the focus in the literature has most often been on students, academics and policies, Heads of School are central to implementing university policies, supporting academic staff, retaining students, and planning for the future. In many ways, they are the lynchpin for the successful adoption of HyFlex. It is essential to recognise them as key stakeholders and ensure their perspectives are considered, as their involvement will significantly influence the effective implementation of this mode within schools and programmes.

Declaration of interest statement.

The authors report there are no competing interests to declare.

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