HyFlex Learning and Teaching: A Guide for Educational Innovation

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Introduction

Learning has evolved rapidly in recent years giving rise to the HyFlex approach; an innovative, disruptive, and necessary change in teaching and learning. We invite you, as a teacher, a course coordinator, a learning designer or other educational role, to reconceptualise your practice around online learning. This resource examines current pedagogical thinking around blended, hybrid, and HyFlex approaches to learning, with a view to rethinking and improving online learning opportunities and engagement for students.

The information and suggested activities in this resource may encourage you to think in different ways and apply new educational technologies. Your adaption and adoption of a HyFlex approach will likely be bespoke, based on clear attributes and general guidelines provided. Your success with HyFlex centres around what you discard from the past, embrace for the future and, above all, your determination to build accessible, equivalent and flat learning that provides for student choice and autonomy.

We have designed this book for you to read and interact with simply as a book or as a course. In the spirit of HyFlex this is your choice.

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PART I

WHAT IS HYFLEX?

HyFlex learning refers to a combination of the terms hybrid and flexible. HyFlex applies to various learning situations and is a key design approach for online learning.

Let's explore the origin of this concept further. Traditionally, in-person learning means attending an on-campus class at the same time as other learners and teachers. The advent of online learning means students can attend class via videoconferencing from a distance. Blended/hybrid learning modes evolved that combined both online and traditional on-campus sessions as a split model, where students can choose one or the other.

Hybrid learning, similar to and often called blended learning, refers to a combination of online and on-campus in-person activities using largely synchronous learning modes. Students have some choice regarding how they want to learn according to their needs and are expected to undergo the same combination of online and in-person activities.

HyFlex learning means that hybrid online learning opportunities are provided for students that leverage synchronous and asynchronous modes. In addition to this, a more flexible learning environment is provided where students can not only choose *how* they want to learn but *when* and *where*, with the flexibility for change during a semester or across a program. The "flexible" aspect of HyFlex is that students are given a **choice** in how they participate in the course and engage with the material in the mode that works best for them over the course and from session to session.

HyFlex differs from Hybrid in that there is no 'second-class' learning experience—all learning modes provide the same or similar access to content, conversations, feedback, and

opportunities for success. Therefore, designing learning to be HyFlex is an opportunity many institutions are now considering and consequently applying resources for development.

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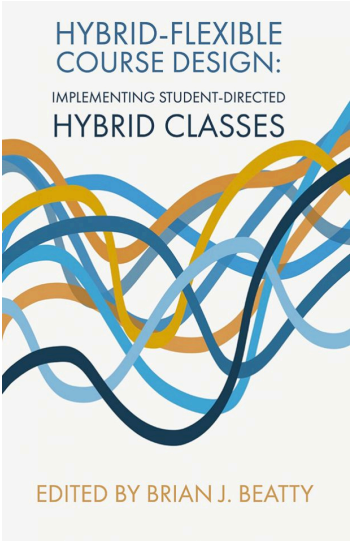
Background

HyFlex is a term that has gained in popularity in recent years, particularly during the COVID pandemic when alternative learning opportunities were urgently required instead of on-campus sessions.

Brian Beatty is credited with coining the term HyFlex back in 2006. At that time, San Francisco State University was exploring opportunities to increase their design and facilitation of online learning experiences, and Beatty wanted a term that reflected a particular approach.

What Beatty was hoping to describe was not just an online experience but one in which the student had choice, and therefore flexibility, in the ways they studied without any compromise of learning outcomes.



Clearly, a traditional blended learning approach was not going to meet our requirements. We decided that we needed a "bridge" to online; an approach to serving fully online students without abandoning our current classroom students. (Beatty, 2019, p. 17)

Learning remotely, whether online or as distance education, has been an option for many years. The now ubiquitous access to networked technologies has helped facilitate the online experience, but prior to this, students would receive documents and media in the post. These resources and learning experiences were replications of the on-campus experience. While that might sound like a reasonable substitute and perhaps even an equivalent experience, it has become clear that this is not the case. Regardless of the type of experience, more students are now choosing to study remotely, which has created a need for greater thought to be applied to fully utilising the technology that can facilitate a truly equivalent experience.

You have come to with this short course due to your interest in HyFlex, or perhaps your motivation to learn new approaches to online learning design (what ever it is called). Many of you may already work in the online environment, and if not, you most probably did during the height of the COVID pandemic. You are here as an online learner, which means you have a glimpse at what these experiences will be like. We start this HyFlex story by looking at the strategies, theories and practical approaches that have come before, with an emphasis on the people working in the field as online technology supported learning has grown.

Wenger (1998) coined the term "**Communities of Practice**", and this has been a significant conceptualisation of how people learn. Importantly there is an emphasis on how adults learn and how they learn in the workplace. The premise of 'legitimate peripheral participation' reflects the type of online learning that is flexible. The learner is making choices about how and why they learn, and the learning is often done through interactions with a community. This approach is different to one where the teacher is directing what, when and how the learning will occur. Wenger's (2020) more recent work frames these ideas within **Social Learning Spaces**, again recognising the varied ways that we learn outside of the on-campus teacher-centred spaces. Social Learning Spaces provide for peer-to-peer interaction and encourage team work thereby helping students to feel more engaged and connected.

Presenting a paradigm shift, **Garrison** argued in 1985 that technology had a significant impact on distance education and the way in which it was delivered/received. Garrison continued to focus on exploring the dynamics between technology and learning with the seminal text for online higher education, *E-Learning in the 21st Century*, first published in 2003 with his colleague Anderson. This is where the framework of three presences was discussed, and it has gone on to be

adopted and adapted by online teachers across the globe. You may have heard of social presence, teaching presence, and/or cognitive presence. These all sit within the **community of inquiry framework**.

You may be curious about why communities have featured in these theories, and we will unpack this further. For now, consider whether the learning environment in which you work is a community, or if learners are isolated and do not interact well with peers.

Hybrid

The first part of the term HyFlex, 'Hy' is referring to **hybrid**. That means the learner experience for the student will be a blend of modes. Usually that is the on-campus (face-to-face) experience and some form of technology-enhanced learning. With the rise in use of Learning Management Systems (LMSs) in Higher Education, the ease with which learning resources can be housed and accessed has increased. But that does not always equate to a good learning experience or suitable use of the technology. The key point here is that hybrid would not exist if we did not have the technology to support it.

Bonk and Graham edited the *Handbook of Blended Learning* in 2006 with subsequent reprints. You will find this is a useful text to explore if you want a bit more history of hybrid, blended, distributed, and e-learning approaches. Interestingly the 2000's was a time when significant uptake in online learning was happening and when teachers were trying to find ways to improve the experience. Supporting this was access to the new and exciting 'Web 2.0' tools such as blogs, wikis, podcasts and early video conferencing tools such as Skype. These digital tools allowed participants to connect, communicate, and collaborate more effectively online.

Importantly they also supported personal and collaborative creation and co-creation, not just content consumption.

Flex

The second part of the term, 'Flex' refers to **flexible**, and this is the real point of what HyFlex is or should be. This is what makes it more complicated than simply being Hybrid or using technology. We are going to explore this aspect of HyFlex in more detail, but for now, consider whether the courses you are designing meet some or all of Beatty's (2019) Four Principles of HyFlex:

1. Learner Choice
2. Equivalency
3. Reusability
4. Accessibility

Undoubtedly the COVID pandemic has impacted on and changed the way that education is viewed. Learners already had expectations that were not being met, but through enforced online learning experiences, a spotlight was shown on what could be achieved. The will to create a student-centred-hybrid learning environment has been driven by those that are at the centre, which is the students.

> Educators who embrace HyFlex will forge ahead as they provide relevant, flexible learning experiences, and students will vote with their virtual feet.

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Learning Modes

The term 'Learning modes' refers to 'how' a learner essentially interacts with the content, the teacher and peers. There are two learning modes: **synchronous** and **asynchronous**.

Synchronous means in real time, being in the same place at the same time. Asynchronous means activities and communication are done not in real time but when the participants are ready/able to engage.

Synchronous

Synchronous equates to '**in real time**' being in the same place at the same time where learning takes place in person and teachers and or learners are able to interact simultaneously. To be synchronous there needs to be two or more people in the same space (physical or virtual, and face-to-face) at the same time.

Asynchronous

Asynchronous equates to '**not in real time**' where learning or interaction is not at the same time whether in class or online but when participants are ready/able to engage in their own time. It most often occurs with the learner (from an on-campus or online cohort) being by themselves and choosing how and when to interact with the learning content and activities. It also applies to learning activities where the teacher and other students interact online using specific edtech tools, but not at the same time.

Most people are very familiar with synchronous learning modes because of the years spent in classrooms physically present with a teacher and their peers. The synchronous virtual learning mode is now also very familiar and it can be via video conferencing (e.g., Zoom, MS Teams) or even in a virtual world (e.g., Second Life, Minecraft).

Many of us have been building various synchronous experiences for a long time. We now see teachers and learners grappling with the reality and importance of asynchronous learning modes. But what do we mean by asynchronous being the 'glue' that hold online learning together? How can we make it an equivalent experience to synchronous learning?

Asynchronous is the glue that holds online learning together.

Blended, **hybrid** and **HyFlex** are terms that employ a combination of synchronous and asynchronous learning modes to share content and encourage interaction, engagement, retention and overall satisfaction. In 1989, Moore shared the **Theory of Transactional Distance** for increased engagement through online interactivity. This included how engagement in learning takes place student to student, teacher to student, and student to content. It continues to resonate today as we design and build better online learning opportunities using existing and emerging technologies.

Asynchronous learning is a leveller that allows students to participate when they can't join the synchronous session. Asynchronous mode can also be the dominant design that drives the learning instead of typical synchronous modes.

Asynchronous versatility is an affordance of using various digital technologies. This continues to be a truly untapped area that has moved beyond text based forums to students being able to collaborate and communicate, especially through video and audio. Exploring this opens learning experiences to feel more like they are synchronous and begins to humanise the online experience. Examples include contributing to a forum or sharing resources via an edtech tool like Padlet or Voicethread or collaborating on a Google doc.

The table below briefly shares typical actions in synchronous, asynchronous and combined modes.

Synchronous	Asynchronous	Both
MS Teams call	Listening to a recording of an online tutorial session	
Online virtual meeting (Zoom)	Online discussion forum	Collaborating on a Google doc
Tweet/X chat	Interactive shared resource (Padlet, Voicethread)	

Designing for asynchronous learning is not new; institutions have been doing this for more than two decades; however,

what is more challenging is changing the mindset away from synchronous being the dominant or only mode of learning through belief that learners cannot succeed unless they are 'face-to-face' in a synchronous environment.

Bates (2015), author of Teaching in a Digital Age shares a post-COVID update to his book about learning modes (Bates, 2022). He describes the educational benefit of asynchronous technologies or recorded media as:

"...the ability to access information or communicate at any time offers the learner more control and flexibility".

He shares relevant research leading to inevitable design changes for asynchronous use and concludes:

"...for online learning, asynchronous should be the default model, but supported by synchronous teaching where necessary and appropriate."

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What problem does HyFlex solve?

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All good design decisions should be based on the problem we are trying to address. A problem isn't necessarily a bad occurrence, but at its most useful, it can help drive our reason for finding a solution or a new way of doing something. A problem helps us focus on the outcome of our design decisions.

Here are a few problems that we have experienced that HyFlex helps to solve. Consider why you are here. What made you think that HyFlex might be a solution to your problem?

In the interactive artefact below three key problems related to online learning are shared:

- **Mindset:** The online experience is less meaningful than

the on-campus
- **Attendance:** Students not attending online classes
- **Teaching:** Teachers not knowing who their students are

What problems have you identified with online teaching and learning?

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https://usq.pressbooks.pub/hyflex/?p=201#h5p-19

Reflection

HyFlex learning – innovation or disruption?

Can we call HyFlex learning and teaching innovative, disruptive – both? or neither?

Moving into HyFlex learning is probably innovative. But maybe it's also more disruptive because we already know that we can learn synchronously. Do we know how to learn asynchronously? How comfortable are we starting to rethink asynchronous as the dominant mode aligned with HyFlex objectives? How do we foster innovation in current practices around this to fully support student learning outcomes? Maybe it's disruptive in terms of asking people, teachers, designers to think in a different way.

We invite you to consider your position on HyFlex learning based on your understanding, context, and disposition towards new ideas and practices. Do you think it is innovative or disruptive?

What are your thoughts about initial impacts on stakeholders when implementing HyFlex learning?

Consider how you would plan to implement this at your institution, in your Faculty, in your discipline. Are there any bespoke conditions that may impact this plan?

Quiz

Try this quiz to test your understanding

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https://usq.pressbooks.pub/hyflex/?p=125#h5p-1

PART II

APPROACHES TO LEARNING

At the very heart of HyFlex learning is the learner-centred-hybrid model.

Most of us believe that we are doing what is best for our students, and it can be perplexing when we receive feedback that suggests otherwise.

At the heart of HyFlex, there is a shift away from a didactic method to a more **constructivist approach** to teaching. The didactic method of teaching centres on structured learning that is planned in advance where learners are more passively engaged and given information (Indeed, 2023). It usually consists of teachers presenting pre-planned lessons to address specific learning objectives (Indeed, 2021). On the other hand, a constructivist approach is where the teacher takes more of a facilitator role and helps the student become more active in their learning (McLeod, 2019a). This is because constructivist theory centres on the idea that knowledge is gained through past experiences, and in teaching practice, this means the student's prior knowledge is considered in the classroom rather than prescribed to a set learning plan (McLeod, 2019a).

This table from SimplyPsychology (McLeod, 2019a) shows the difference between the two:

Traditional classroom (didactic)	Constructivist classroom
Strict adherence to a fixed curriculum is highly valued.	Pursuit of student questions and interests is valued.
Learning is based on repetition.	Learning is interactive, building on what the student already knows.
Teacher-centred.	Student-centred.
Teachers disseminate information to students; students are recipients of knowledge (passive learning).	Teachers have a dialogue with students, helping students construct their own knowledge (active learning).
Teacher's role is directive, rooted in authority.	Teacher's role is interactive, rooted in negotiation.
Students work primarily alone (competitive).	Students work primarily in groups (cooperative).

Consider:

- What type of teaching approach do you currently use?
- Have you tried other approaches?

Constructivism

A good starting place to understand constructivist approaches to teaching and learning is in the work of Lev Vygotsky. His work dates back to the early 1900s, but it has formed the foundation for much of the teaching strategies that consider the way a person learns and specifically in Vygotsky's case, how a child learns (Vygotsky, 1978). Vygotsky's main theory is the "**Zone of Proximal Development**", which describes a child's learning ability with different levels of assistance (McLeod, 2019b). The inner zone is what the child can do on their own, the second is what they can do with assistance/guidance, and the third is what they cannot do (McLeod, 2019b).

When we adapt the basic premise of the Zone of Proximal Development, we start to put the student as an individual at

the centre of the decisions made about the learning experiences we design and the way we teach.

However, with the adult at the centre of the learning design, a picture emerges of someone who wants to be given choices to support their learning. These choices will manifest in flexible delivery style, time, and modes. At the same time they provide meaningful learning experiences that sit within theories of experiential, inquiry, problem and project based learning (to name a few).

> When both temporal and geographic constraints are eliminated and learning design is student-centred, then HyFlex approaches become possible and viable.

Connectivism

Connectivism (Siemens, 2005) is another theory or approach to learning. Downes (2022) reiterates the learner as having two separate networks: personal learning and social learning. In simple terms, and related to our theme of flexibility and choice regarding HyFlex, learning does not happen in isolation. Students may think it does (or some may want it to), but learning is about making connections through online networks. Another way to look at this is a **Personal Learning Network (PLN)** (Oddone, 2018) developed through local and global interaction with others. Constructivist learning requires social interaction and a designed HyFlex model provides choices for how, when and what this looks like for the learner.

> Connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks (Downes, 2022, p. 59).

Identifying the unique needs of your students (and teachers) is an important part of the process when moving to or designing HyFlex learning. Their preferences for connection, communication, collaboration and creation or co-construction of learning should be considered. Development of learner digital literacy (Oddone, n.d), including media literacy and improved confidence when using technology for learning – both as an individual and with peers and teachers – is another aspect of HyFlex.

We will explore educational technologies later in this course. For now, consider your context and expectations for student connection and social networking, leading to collaborative co-construction of knowledge.

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Transformative pedagogies

Based on **social constructivist principles** (Vygotsky, 1978) and the context of HyFlex learning, transformative pedagogies use digital technologies to change how we teach and learn. This is beyond merely "upgrading" to new edtech tools. By forging new socially constructed relationships, transformative pedagogies provide for reconstructed understandings by learners. The **SAMR** model (Substitution, Augmentation, Modification, Redefinition), developed by Dr R. Puentedura, helps define how the use of digital technology is shaping pedagogy and transforming learning.

> Modification and redefinition, describe how digital use has led to a significant change in the way teaching and learning is planned and delivered. If the introduction of technology has created a brand new practice, then redefinition has taken place. Collectively, these two categories are more likely to promote digital transformation. (JISC, 2022)

According to Meyers (2008), transformative pedagogies go beyond information transmission when teaching online. This includes creating a safe environment and using teaching strategies for student engagement and participation.

Facilitation, communication, collaboration, and the exchange of information in new and digitally progressive ways align with key HyFlex attributes and objectives.

Foundational learning theorists emphasise the importance of learning with others, such as:

- Social constructivism where knowledge is constructed through interaction with others (Vygotsky, 1978)
- Collaborative learning that emphasises interaction between students (Dillenbourg, 1999)
- Community of Inquiry where learning never takes place in isolation or devoid of environmental influences (Garrison, 2016)
- Communities of Practice where people engage in a process of collective learning that creates bonds between them (Wenger, 2015)

Additionally, it is important to consider evolving theories that rely on internet capability through networked online communities and the socialisation of online learning. These theories provide for student-centred learning and student autonomy through connected and collaborative pedagogies.

Collaborativism (Harasim, 2017) builds on constructivist learning theory and the use of the Internet for collaborative knowledge creation, where educational technologies (usually Web 2.0 tools) are used for communication, collaboration, and co-creation practices to construct knowledge.

This discourse includes other theories that speak to adult learning and motivation. **Andragogy** (Knowles, 1984), based on the assumptions of self-direction and independence, is a model that gives learners control over learning, to become self-directed, and to realise actualisation. Heutagogy (Hase and Kenyon, 2000) is the application of self-determined learning

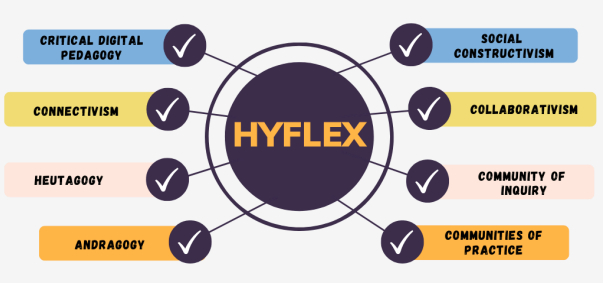
with the attribute of knowledge sharing through open communication and collaborative teamwork.

Then there is the idea and practice of **Critical Digital Pedagogy**, which is also very relevant to this discussion of pedagogies as it transforms learning and teaching in some way.

A Critical Digital Pedagogy demands that open and networked educational environments not merely repositories of content; rather, they must create dialogues in which students and teachers participate as full agents (Morris & Stommel, 2018).

To this effect, we should question the role of interactivity and engagement in a digital learning environment and consider how to ensure connected and networked practice while interrogating/deconstructing the roles of teachers and students.

The shift from delivering content to students constructing their own knowledge is a vital concept and practice when planning for HyFlex teaching and learning. Typically, transplanting traditional pedagogies onto a HyFlex design is unsuccessful. Your plan for HyFlex should include scope to help teachers and learners make that shift to socially based, collaborative learning modes.



HyFlex graphic showing links to transformative pedagogies

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Key Attributes of HyFlex Learning

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Beatty (2019) has suggested that HyFlex is underpinned by four principles – Choice, Equivalence, Accessibility and Reusability. These are born out of his work and his context. We have found in our own context that the idea of Flat Learning encompasses many of the attributes of HyFlex. As such we propose three principles or attributes – **Choice**, **Flat Learning** and **Accessibility**. In this section, we unpack these and invite you to connect your own context to each of them.

Interpretation of the three attributes, their connection to each and inclusion or overlap with Beatty's four principles is shown in Figure 1. Adopting a HyFlex approach means designing learning that accounts for the relationships between

'choice' (learning mode that works best), 'flat learning' (connected, social, no hierarchy), and 'accessibility' (equality assured by embedded universal design principles). Providing for flat learning and choice ensures equivalent outcomes. Using a digital-first design strategy within the provision of choice and accessibility ensures the reusability of artefacts in all learning modes. In addition, connected learning design affords the relationship between flat learning and accessibility.

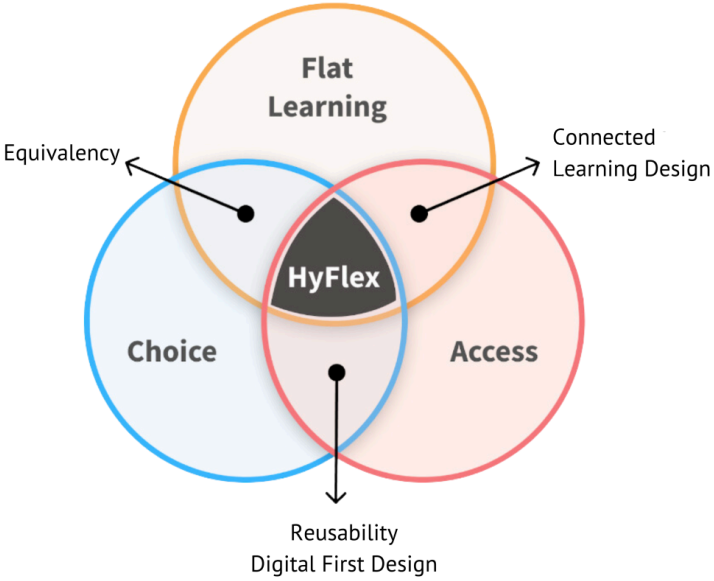

Figure 1: HyFlex model: Three attributes [Used with permission from Engageli https://www.engageli.com/blog/creating-a-virtual-campus]

Benefits of HyFlex Learning: Choice, Flat Learning, and Accessibility

- The attribute of **choice** can be challenging to implement effectively, as educators often feel attached to certain

requirements. However, by designing learning experiences that allow students to have choices within certain parameters, true student choice can be achieved. Trusting students to make choices that align with learning outcomes is crucial. One example of implementing choice is allowing students to inquire into topics they are interested in, rather than providing a limited list of topics.

- **Flat learning** is another attribute of HyFlex Learning, which promotes a multimodal approach where learning can happen with anyone, from anyone, at any time, and in any mode. This approach flattens the hierarchy of learning and emphasizes peer-to-peer, connected, and collaborative learning. It focuses on the social constructivist approach rather than content delivery.
- **Accessibility** is a key attribute of HyFlex Learning, ensuring that all students have access to technologies and learning resources that cater to their diverse needs. By providing equivalent experiences and allowing students to choose when they access their education, underrepresented groups can have equal opportunities in higher education.

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Choice

A common approach to learning design is to be **student-centred**, and this is a popular idea in instructional design models. However, there is a difference between student-centred and **learner-choice**. The first focuses on the learning designer making decisions that they believe will facilitate an authentic student experience. On the other hand, learner choice firmly shifts the learning journey into the hands of the learner, with the learning designer needing to provide multiple and various opportunities for the learner. Fundamentally, the teacher/instructor must be willing to "let go" of a significant amount of control in the learning journey and trust the student to make choices that may differ from ones previously imagined by the designer/teacher/instructor.

When trust is evident between the learner and the designer/teacher/instructor, the learner will move confidently through their choices. Ultimately, they will develop the skills to navigate to the learning outcomes they need for the results they want. In some cases, students will say they don't like choice, but this may be because they are unfamiliar with being given choice and autonomy in their learning experiences. In these instances, the student needs to be supported to explore the choices in a safe environment, where risk is considered a positive attribute. Once students have experienced the positive aspects of choice, they won't want to return to being restricted in their learning experiences.

Underpinning HyFlex learning is the choice of **learning mode** (online, on-campus, asynchronous), but this can be extended to choice at all stages of the learning experience.

HyFlex learning and teaching provides for **choice** for all because:

- learners are given a choice about when, where and how they study
- learners are given various opportunities and means to interact with their peers, the content and the teacher
- the learning design provides equivalency of experience regardless of learning mode
- learning is presented through multiple modes of content and resources.

Choice in the context of HyFlex is about providing choices for the learner. For learners to have choices, they must have access to **multiple resources, pathways, multimedia, and modes.**

Typical examples of design for **choice** include:

- A simple shift from providing a list of topics to choose from (something that looks like student choice) to asking the learner to formulate a question to guide their research. The result is that the learner has more autonomy and still researches the discipline area. For this to happen successfully, the designer/teacher/instructor has an important support role in listening to the learner's interests and helping develop a sense of inquiry.
- Encouraging personal preferences, for example one learner may prefer to watch a video and not read the text, while another might read the text and never watch the video. If they feel pressured to consume all of the provided content, the element of choice has been removed. They have true flexibility if they know they can achieve the learning outcomes by choosing which parts they engage with.
- Providing multiple ways the learner can explore content initiates flexibility. The concept of "redundancy" (see Reiser and Dempsey (2012), for example) is often cited as a reason not to provide multiple versions of the same idea or concept. However, in a HyFlex model, it assures the learner is not "missing" part of the learning.

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Flat Learning

Flat learning implies there is no hierarchy of learning as such. All voices are equal and no one group delivers the information to another group. It implies that learning does not happen in isolation, is social, and requires making authentic and real connections.

> "Flat-connected learning is part of a pedagogical approach enabled by online technologies and has parallels with connected learning, but in many ways, it goes beyond just connecting. It uses digital technologies to forge connections and support everyday workflow, communication and collaboration." (Lindsay, 2016, p. 17).

The challenge with online learning is sustaining connections beyond the face-to-face and virtual synchronous experience. Flat learning is about being able to work with others at a distance (asynchronously) as well as in person, and it involves effective connection, communication and collaboration afforded by appropriate technologies and the development of digital literacy/fluency.

Being "digitally literate" means acquiring the skills to make and create meaning and select technologies to do so. If you are [digitally] fluent, you can self-select from a range of tools to achieve the same outcome and navigate collaborative spaces effectively and confidently with other people (Spencer, 2020).

In a HyFlex learning environment, flat learning relies on student choice (when, where and how to learn) with the understanding that whatever mode/method is chosen, the learning experience and outcomes will be equivalent. Flat learning is also enabled by accessibility when design provides for equality of access to all learning materials and all learners.

HyFlex learning and teaching **flattens the learning** for all because:

- Good teaching is about learning and *not* content delivery. Therefore, in a social constructivist and connectivist context, learners are connected through different modalities using various technologies
- An individual's personal learning network (PLN) is key to

flat learning and the HyFlex approach. Learning becomes the energy that drives the curriculum. Student agency and autonomy through digital literacy/fluency and knowledge management can make the teacher irrelevant; however, an astute online teacher implementing HyFlex approaches understands this and uses multiple opportunities to connect their students with each other and beyond

- All learning materials and interactions/collaborations are available at all times (choice and access)

"Flat" and connected learning is a multimodal pedagogical approach to learning with and from others where all learners have the freedom to communicate "across" rather than up or down (Lindsay, 2016).

Typical examples of design for ***flat learning*** include:

- Minimising closed environments. We know the institutional learning management system (LMS) must be closed to others; however, edtech tools such as Padlet, Voicethread, and others can be set for open viewing or even open access to avoid "blocking" users and to encourage collaboration beyond the immediate cohort and beyond, as required
- Providing a synchronous "backchannel" for hybrid learning where on-campus and online converge. Current practice usually divides these two stakeholder groups while in a

synchronous session. This is alienating and not encouraging of collaboration. Typical tools for this include MS Teams chat, Padlet or a learning environment like Zoom or Engageli
- Leveraging collaborative authoring tools such as Google docs and slides
- Selecting and using a class/course hashtag for use with LinkedIn and other social tools that feed interactions and responses
- Encouraging the use of open resources and open sharing among learners
- Designing assessment that can be openly shared, or at least a part of it, such as a reflective blog post

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Spencer, K. (2020, March 16). What is digital fluency? https://www.digitallearningcollab.com/blog/what-is-digital-fluency

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Accessibility

Accessibility can have different meanings for different people and contexts. In HyFlex, we define accessibility as providing options for the learners so that they can access content, ideas and collaborations through whichever mode they choose and at a time and place they choose.

The reason that accessibility is a priority for a HyFlex environment is because of digital technology. Accessibility is possible in previously inconceivable ways due to network capabilities, software and hardware. With the rise in access to networked technologies, there has been an increase in enrolment into post-secondary formal education by groups of people who would previously not have been able to do further study. For example, people with children are now more likely to return to study because they can access the learning experiences from home, asynchronously, at a time and in a place that fits their other commitments. The ubiquitous nature of the internet and the way in which anyone can produce

"learning" materials has facilitated access to informal learning experiences, from how to knit to how to change a tyre, to learning philosophy.

Another aspect of accessibility is the way that learning experiences are designed. Technologies that support different learner needs have increased and become more widely accepted as the norm. This includes assistive technologies such as text-to-speech software, voice recognition, reading pens, proofreading software, the ability to adjust text size and colour, virtual reality and augmented reality. Those designing learning experiences now have easier access to audio and video creation materials, including captioning, thereby offering the learner a variety of modes to access the content and ideas.

An area of learning design that is perhaps less considered is the asynchronous experience. There is often an assumption that synchronous experiences are the lifeblood of learning, in which the teacher interacts in real time with the learner. However, current technologies provide asynchronous experiences that not only provide high-quality interactions but also allow the learner to choose when and how they will interact.

When designing for HyFlex you may observe that there are overlaps in the principles of Universal Design for Learning (UDL):

- Engagement: the *why* of learning
- Representation: the *what* of learning
- Expression: the *how* of learning (Rose & Meyer, 2006)

Each of these is considered and presented to the learner through numerous means. Barriers should be anticipated in order to circumvent them early. Learning goals and objectives should always be clear and achievable through various pathways.

If you are already using UDL principles, you will find that you are either in a HyFlex environment or very close to it. If you are new to UDL, we encourage you to explore the online resources further.

HyFlex learning and teaching provides **accessibility** for all because:

- The learning design provides equivalent experiences no matter how students access the materials
- Students are encouraged to connect and interact with peers, teachers and content through accessing mode of choice
- Flexibility in relation to modes and time frames is a focus

Typical examples of design for **accessibility** include:

- providing content in different formats, e.g., a PDF as well as a video. This caters to the diversity of the learner cohort and provides entry points to content in ways that are meaningful to everyone.
- ensuring no students are left behind through shared resources in reliable places, e.g., a recording of the synchronous session for students not present to review; a handout provided in an on-campus class also available to online students or asynchronously from the same time
- making sure that transcripts, captions, text are provided for multimedia content to be inclusive of learners needs.
- designing courses in a manner that is flexible in relation to timeframes of completion, including assessment deadlines.

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Reflection

Attributes in context

Now that you have explored the three attributes of HyFlex learning, let's discuss interpretation and relevance to your context.

Here is the diagram we created earlier sharing the relationships between HyFlex attributes and principles.

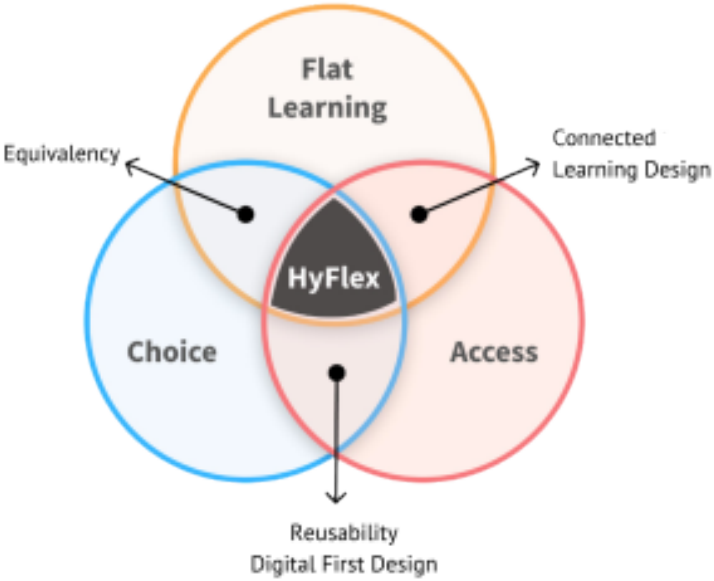

Figure 1: HyFlex model: Three attributes [Used with permission from Engageli https://www.engageli.com/blog/creating-a-virtual-campus

Use these questions as prompts for discussion with your peers:

- How do the three attributes (choice, flat learning and accessibility) apply or could apply in your context?
- What are some challenges with implementing designs that cater for choice?
- What are the features and challenges of a flat learning and teaching approach?
- What are challenges with accessibility?
- What examples can you share of these attributes being used in your learning environment?
- How do you see the interconnectedness of the attributes with equivalence and reusability?
- If you were to draw a contextual relationship diagram of the attributes and principles, what would that look like? Why?

Consider your online learning challenges/problems and your context in terms of your students and teachers.

- How HyFlex are your current approaches?
- Do you currently design learning in a 'digital-first' mode?
- How do you/would you develop relationships between synchronous and asynchronous learning?
- Is HyFlex the 'magic bullet' for how we design and implement learning now? Does it meet the needs of your context?

This is an important area for you to formulate initial ideas about HyFlex learning based on evidence from your institution/context/beliefs/practices.

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Quiz

Try these two quizzes to test your understanding of learning in a HyFlex environment

Quiz One – Choose True or False for each statement.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=209#h5p-7

Quiz Two – Drag and drop the words to match the phrases

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=209#h5p-8

PART III

DIGITAL TECHNOLOGIES

In the past 20+ years, digital educational technology has been the main driver in terms of facilitating a shift in approach and attitudes toward teaching and learning. Even for people who don't have any particular interest in edtech, it is unavoidable. Technology is ubiquitous, and to ignore the affordances leaves the educator exposed to poor outcomes for their students.

If we want learners who can:

- Connect
- Communicate
- Collaborate
- Create
- Co-construct/co-create new knowledge
- Develop digital fluency

And we want teachers who can:

- Connect learners
- Facilitate communication
- Encourage interaction that leads to collaboration
- Provide for learner choice when creating and co-creating
- Encourage an environment of experimentation leading to skill building and digital fluency

And we want learning ecosystems that:

- Are readily accessible and intuitive to use
- Accept multi-modal responses and contributions: text, audio, video
- Provide for different forms of collaboration
- Encourage student autonomy and risk taking

Then we can look to the affordances of contemporary ed tech tools to support the development of these attributes in the learner, teacher and learning environment.

Access

Access to good educational technology tools should be a priority within a HyFlex learning environment. What is needed is well designed educational technology tools, or taking tools that are out there (such as social media e.g., Instagram) and reapplying them to an educational context.

What if we ask ourselves –

- How am I connecting with my students after we meet synchronously?
- How are they connecting with each other?
- What tasks are in the learning design that foster meaningful connection and collaboration (as opposed to the typical 'comment on this week's content' style of discussion forum post)
- What choices are provided for assessment that foster individual as well as group responses?

When tasks are manufactured through the use of assessed discussion boards or forums they become 'false' collaborations and communications. Fabricated for the teacher. Now that we are all so familiar with instant messaging and social media our expectations have changed about when and where we communicate and collaborate so we need to be harnessing not necessarily the actual technology but the affordances of that technology.

What is it about social media that works so well? Anytime, anywhere to almost anyone. Imagine if we had that level of captive audience in our learning environments. Well we do and we can, if we utilize edtech tools with more understanding and fluency.

It is challenging to list educational technologies in an ever-

changing landscape of innovation however these have been available for many years and proven to consistently afford the transformative pedagogies we aspire to:

- Padlet
- Voicethread
- Flip (after 12 years, now integrated into Microsoft Teams)
- Shared docs (e.g., Google docs and slides)
- Mural
- Popplet
- MS Teams
- Wakelet
- Diigo
- Buncee
- Engageli
- WordPress

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https://usq.pressbooks.pub/hyflex/?p=195#h5p-5

Case Studies – Examples of digital technology that facilitates Access

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https://usq.pressbooks.pub/hyflex/?p=195#h5p-26

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=195#h5p-6

Overcoming Barriers

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An interactive H5P element has been excluded from this version of the text. You can view it online here: https://usq.pressbooks.pub/hyflex/?p=197#h5p-32

HyFlex learning and teaching is exciting. It's transformative for learning and teaching and might solve a range of problems in our online programs. So, why is HyFlex not more widely adopted?

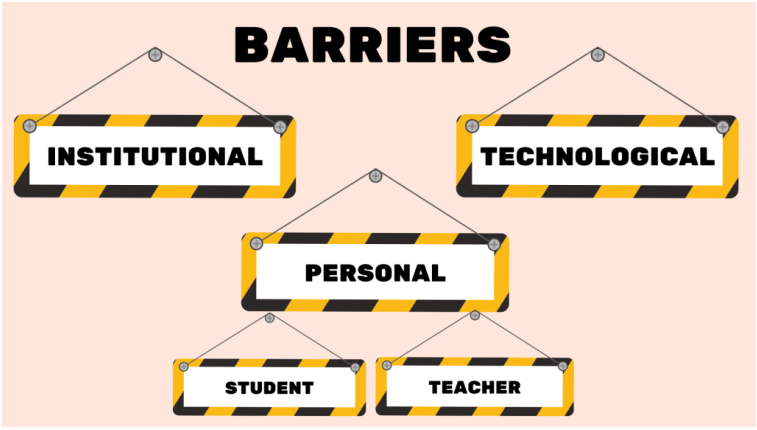
Barriers and enablers

There are always challenges or barriers when implementing new educational technologies to support learning. We need to solve many of these and find or create enablers. Ultimately, it is important to acknowledge them and find solutions rather than

allowing them to stop us from innovating. Including enablers in your planning is critical to future success.

Educational technology research often explores the barriers and enablers with common themes emerging for the Higher Education context. We have aligned these to:

- **Institutional** – controlled by the institution and sometimes out of the control of the learning designer, academic and/or student. This might include access to the technology as distinct from the actual technologies.
- **Technological** – the technologies that are available at any given time and in any given context may add a barrier. The institution may provide access to the technology, but it may not be the technology that best facilitates HyFlex.
- **Personal** – these barriers are varied and may include the individuals' access, attitude and aptitude.



Institutional

Despite all the best intentions by the institution, it is often the most difficult barrier to address. This is partly due to the many stakeholders involved and partly due to the processes and procedures. In the HyFlex context, the adoption and implementation of new learning and teaching approaches, including the use of alternative educational technologies, requires collaboration between:

- Administrators
- ICT department staff
- Policymakers
- Pedagogical experts
- Discipline experts

Communication and collaboration around HyFlex learning objectives at the broader institution level is crucial for success. Beatty first coined the term 'HyFlex' to provide a common language for stakeholders in the institution. He discusses this in HyFlex Course Design Model (Beatty, n.d.). Therefore, the first step in implementing HyFlex in your context is to come to a common understanding that can be communicated to all of the stakeholders.

Things to consider:

These are the essential considerations and discussions to have when moving towards HyFlex learning (or any other related digital transformation) within the institution:

- Infrastructure: what exists and what is required (hardware, edtech software and networking)

- Policies and guidelines: is there willingness to shift in support of new ways of learning
- Teacher capacity: how stressed is the teaching staff and what support will they receive within academic courses and programs

Ideally, HyFlex learning needs to start with a vision for both virtual and physical learning (on-campus and online) and then build from there. Often an institution divides the two modes, on campus is, well, on campus; online means using a tool like Zoom or Engageli to run and record sessions. Combining these tow objectives creates the hybrid situation we shared earlier, and this requires ICT careful setup and pedagogical knowledge to manage the session.

Technological

Technological barriers include institutional (availability and access) and the approach or attitude that individuals have towards technology. Ertmer (1999) described these as first and second-order barriers over 20 years ago, and they persist today. First-order barriers refer to a lack of hardware, software and networking, a lack of time to plan, and inadequate technology and/or administrative support. Second-order barriers are intrinsic to the person and include attitudes and beliefs about the efficacy of digital learning and unwillingness to change. Ertmer's framing of barriers in this way is useful when you are trying to make a case for the use of technology. The categorisation into first and second order can also help when trying to identify what the barrier is and how it might be addressed.

The institution needs to provide the technology and the "licence" to innovate and experiment with technology. Some institutions are very proprietorial about what can be used,

which can restrict innovation. Often, the status quo is easier to maintain through controlled strategies that do not align with innovation or change. In some countries or global areas laws restrict the use of some technologies in order to provide privacy and protect user data. These 'barriers' can be difficult to overcome or problem solve. In our experience, there is always a way, keep ideas alive through ongoing discussions and find pathways to success.

One goal is to have a fully integrated virtual campus for students to experience on-campus learning and vice versa. For HyFlex, this includes both synchronous and asynchronous technologies, and therefore these technological aspects need to be addressed:

- Low/poor bandwidth
- Technical support by the institution's ICT section (helpline) and/or third-party
- Students and staff knowing how to use the technology (include video-based "how to" resources for all newcomers)

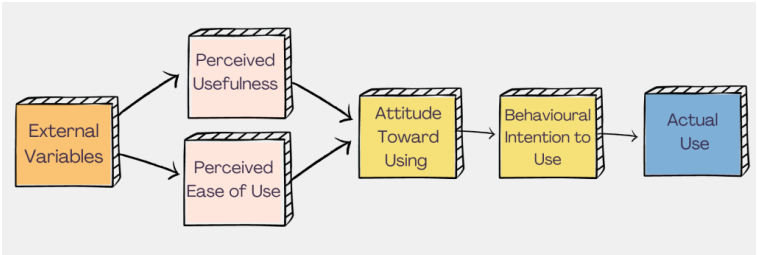
Personal: the teacher

As Ertmer (1999) revealed it can often be personal barriers that stop faculty from progressing when it comes to innovative approaches like HyFlex.

Rogers's (1962) diffusion of innovations is a good representation of the stages of adoption and where people might sit in terms of their willingness to try new approaches. There may be a range of people from laggards to early adopters, but fundamentally, most people are with the late or early majority. These people are willing to adopt innovation once it has been tested out by the early adopters. Rogers first

published his work in 1962, and his book is in its 5th edition, referencing more recent innovations.

Other models that help to explain why the teacher may find technology as a barrier is the Technology Acceptance Model (Davis,1989). Davis suggested that for a technology to be accepted, the user needs to recognise its usefulness and ease of use in order to move towards using the technology. This is often described using the graphic below.



Technology Acceptance Model

A HyFlex Mindset

Much of this points to the individual's mindset in terms of how open they are to try new things and how willing they are to take a risk and perhaps feel that they have failed (hopefully only at first). We'd like to suggest that there is a HyFlex mindset in which the student is at the centre of learning design, with the provision of authentic and flexible learning for students being the key driver. When we start with this as the premise, then we have the motivation to work through the personal barriers.

Personal: the student

The student may have their own barriers to accepting the HyFlex model, and the teacher may encounter barriers that impact the students. Many students will not be familiar with being given choice and flexibility, which may make them apprehensive and fearful of what that means. If they typically know what they need to do to get a certain grade and have been stepped through processes, then this may be a more comfortable place for them in the learning environment. Students will also be on the innovation scale of laggard to innovator, and teachers will have a cross-section in their classes. What will the level of readiness to accept HyFlex as a student actually be? Trying to ascertain this at the start of your course may be prudent.

While HyFlex is designed to be student-directed at its core, the students may not be ready to do the directing. The work of Gilly Salmon (2011) in her five stage model for online learning is useful reminding us to start small and build up to more complex and open opportunities for the students. She starts with "access and motivation", leading to "social experiences" that encourage students to develop confidence in the learning ecosystem. Course design that follows the additional stages accounts for "information exchange" and learning community building, "knowledge construction" involving collaboration and a move to teacher facilitation, and "development" of meta-cognition.

Students also need to recognise that some of the technology and approaches we are using may not fit their initial perceptions of a learning experience. They need to trust us to set the scene for effective learning and to support them through the journey. Our role is to help develop that trust so that we can frame their experiences.

For example, what if the student has come to class thinking they just want to sit and get? There are some days when some

of us would like to do that too. In a HyFlex model, we can have experiences designed so that on those days, students can choose the level of interaction or participation and at a later date, if they believe they need to, they can come back to other resources and materials. This is a more personalized approach that potentially requires using a range of multimedia that may stretch their comfort zone of technology. For example, using video to be more present in an online space. This might take some time and consideration of what their previous experiences are.

In order to facilitate HyFlex well we must be mindful of student expectations for their learning environments to ensure full engagement through use of contemporary technology available.

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The Impact of Artificial Intelligence

HyFlex design focuses on flexible learning options and choices for participation. The integration of Artificial Intelligence into HyFlex approaches includes the use of tools for academic efficiency and personalized design. In addition, approaches to Generative Artificial Intelligence (GenAI: capable of generating text, images, videos, or other data using generative models, often in response to prompts) for students might include fostering critical thinking, creating artefacts and developing skills for more personal interactions leading to enhanced outcomes. One key objective here is 'personalization' of the learning. The use of AI can compliment both the learning process and learning outputs in ways that we might not have even thought of yet.

Enhancing interaction with AI

Much has been written and researched about the challenges of 'Transactional Distance' (Moore, 1997) and now in the emerging era of AI integration into learning and teaching we are realising the power of new tools to simulate the interactions found in synchronous learning. Student isolation from other learners can be mitigated via GenAI. Tools such as ChatGPT can be used to build chatbots for dialogue with students learning in asynchronous mode who may not have sufficient autonomy to succeed. Beatty (2024a) discusses chatbots as study aides with capacity to interact with the student as a substitute for instructor interaction, such as 'Course syllabus explorer'. The use of GenAI helps build a sense of community among

asynchronous learners by emulating interaction with peers. Examples include 'Breakout companion', 'Peer review partner', and perhaps even more interesting 'Breakout for three', about which Beatty (2024a) states,

> The Breakout for Three GPT offers a simulated three-person breakout discussion, with the AI assuming two roles: a "more knowledgeable other" and a naïve learner, based on Vygotsky's concepts (1978). This setup allows students to engage with peers of varying understanding levels, providing a rich learning environment..... aynchronous learners can immerse themselves in a simulated synchronous experience, similar to a genuine breakout conversation. The GPT can offer a summary for class debriefs and steer the conversation based on provided prompts, allowing deeper exploration of topics. Each interaction is unique, and students can use the GPT multiple times to further explore the subject matter.

The possibility of making asynchronous interactions more interesting and accessible through AI has great potential, as Beatty (2024b) states,

> While AI interactions cannot fully replace human interactions, they offer a valuable supplemental experience that addresses the unique needs of asynchronous learners, ensuring that all students can achieve their educational goals.

Examples

Quizzes for formative assessment and student engagement are well known; however, creating relevant quizzes can be time-consuming.	Chat Bots can be easily programmed in something like ChatGPT and help 'fill in the gaps' for students who are not present synchronously but who want choices and equivalent learning options.
A tool such as Nolej.io constructs a variety of quiz modes quickly based on analysis of artefacts such as a PDF file or video, including the post-lecture or tutorial video. GenAI tools that will do this task include Claude.ai and ChatGPT.	An example might be a virtual learning tutor who can hone in on concepts and encourage deeper understanding.

Note: Quizzes in this book are generated by Nolej.io into H5P formats.

While we are still in the early days of AI in education, the type of access and personalised learning that AI can provide aligns perfectly with a HyFlex approach. Consider how AI could support your HyFlex aspirations. Some of these ideas might help:

- Personalized learning paths adapting to the learner's specific needs.
- Automated content creation to support faculty to develop better content quicker.
- Intelligent tutoring systems in which the tutor responds to the learner at their own pace, when and where they have time.
- Enhanced engagement tracking that feeds back to the learner.
- Improved accessibility with automated transcripts, captions etc.
- Adaptive assessments linked to the needs of the individual learner.

- Predictive analytics to support the development of resources specific to where the learner is at.
- Chatbots and virtual assistants to do the 'drudgery' work that faculty do (emails, FAQs etc).
- Automated grading and feedback to save faculty time and provide feedback in a timely manner.

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Reflection

What is the role of educational technology?

You are invited to consider the role educational technology plays in supporting transformative pedagogies when building a HyFlex learning environment.

- What is your context?
- What edtech tools do you use? Have access to? Prefer?
- How are you already or would like to use these edtech tools to support HyFlex learning attributes?
- What tools would you like to use?

Pathways to go HyFlex

Consider and investigate your context and pathways to HyFlex learning and teaching. Share comments and questions around:

- What are your institution's key barriers and enablers (institutional, technological and personal)?
- How will/can you collaborate to overcome these?
- What must you consider when 'planning to plan' for HyFlex learning and teaching?

Quiz

Try your hand at our 10 question quiz to test your knowledge from this chapter.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=214#h5p-20

PART IV

DIGITAL-FIRST DESIGN

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://usq.pressbooks.pub/hyflex/?p=141#oembed-1

An interactive H5P element has been excluded from this version of the text. You can view it online here: https://usq.pressbooks.pub/hyflex/?p=141#h5p-33

One key enabler of HyFlex learning is applying digital-first design strategies that explore the relationship between synchronous and asynchronous modes. Appropriate digital-first design strategies can re-conceptualise student engagement and online learning within a HyFlex classroom.

Digital-first learning design means designing learning for the core business of online learning. It means designing for asynchronous online learning modes from the beginning or "first," using techniques that provide the HyFlex attributes of choice, flat learning, and accessibility. Synchronous opportunities can then be placed on top of the essential design rather than being integral to student engagement and success.

Therefore, in support of social, cognitive and teaching objectives, digital-first learning design means you:

- Start with the online space as the essential means of exchange and collaboration
- Lay out the communication and multimedia in a way that flows for students
- Design learning experiences that suit the modality and use the affordances of technology
- Create/convert all learning resources for online at all times from the start, e.g., there should be no handouts that only on-campus students receive
- Design learning activities to be interactive and collaborative that are scaffolded by online spaces and resources

Digital-first learning design means designing for asynchronous online learning modes from the beginning or "first" using techniques that provide for HyFlex attributes of choice, flat learning and accessibility.

Figure 1. Approaches to digital-first design

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Elements of digital-first design

Teaching presence

The element of "teaching presence" is informed by Garrison's (2017) Community of Inquiry (CoI) framework. When learning online facilitation by the teacher ensures productive and sustained participation in the CoI and improves student confidence, independent learning and socialisation of the learning experience is encouraged and supported. This involves regular online teacher-student communication such as announcements. It also applies to contributions in places where students are encouraged to engage and interact (e.g., forums, Voicethread, Padlet, MS Teams group).

Teachers often state they cannot get to know their online students unless they meet with them synchronously. This is a fallacy, as much research has shown (Garrison, 2003; Watson et al., 2023). However, through strategic online facilitation (teaching presence), students often share more, contribute more (especially if there is an anonymous option for some discussions), and reveal more via online interaction, blogs and portfolios than in a series of synchronous sessions.

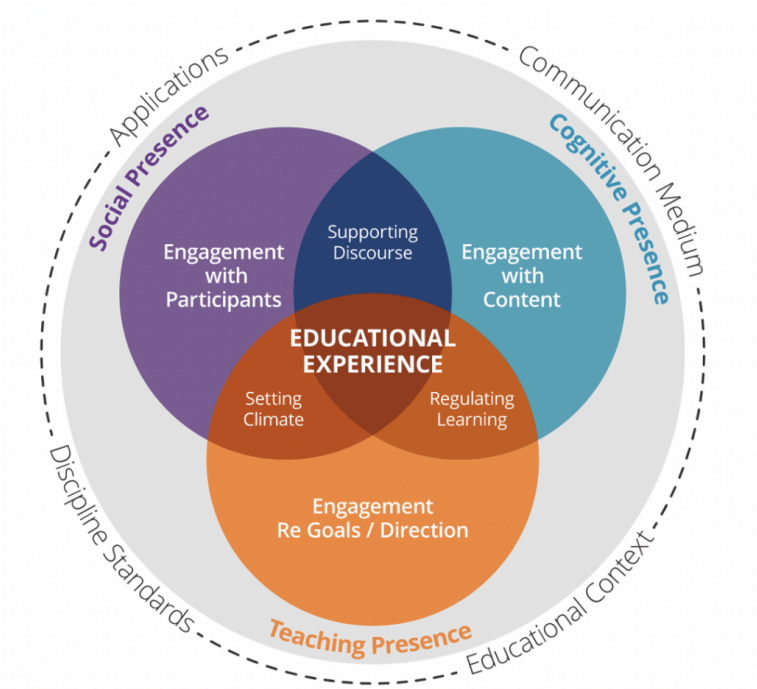


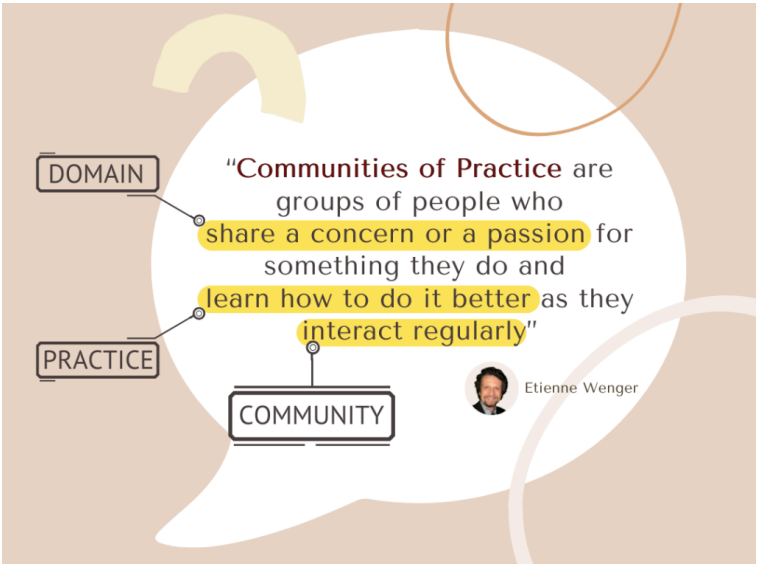
Figure 1. Community of Inquiry framework

Student interaction and collaboration

Aligned with Garrison's CoI framework and "social presence", interaction and collaboration are necessary to establish relationships as a foundation for deep and meaningful educational experiences. Enhanced learner-learner interaction through designed activities for formative or summative assessment is a key digital-first strategy. This includes both synchronous (virtual) and asynchronous modes and encourages shared understandings, critical thinking and social construction of knowledge.

Cultivating a Community of Practice (CoP) (Wenger, 1998) relies on interaction where peer learning activities are important in addressing students' sense of isolation. Flexibility is assured when designed predominantly for asynchronous communication and collaboration. Consider the student who isn't comfortable in the on-campus classroom and doesn't speak up. In an asynchronous online space, they can have more of a voice, one in which they have had time to consider the ideas of others, perhaps do some further research, and then make a contribution. And if we use applications that promote students using their voice or video, they also start to feel like they are interacting with their peers in a meaningful and humanised way despite not being in the space at the same time.

Learning does not happen in isolation; therefore, designing and facilitating student interaction and collaboration to build a Community of Practice is vital for supporting HyFlex goals.



Interactive resources

High-quality learning media can support the student's understanding of conceptual material by providing visual examples of practice and contextualising the broader learning experience. The use of curriculum-specific interactive learning resources, including audio, video, interactive multimedia and computer-based simulations, can provide rich and deep engagement with content and support student learning through visualisation, exploration and embedded feedback. This includes immersive environments where students undertake simulated professional practice. In addition, assessment redesign that supports the student as the "creator" of rich media artefacts encourages flexibility and choice of assessment products.

The development of interactive rich media artefacts supports conceptual understanding of the material. In a HyFlex digital-first environment, this applies also to student choice for assessment and the opportunity to create visual, audio, or graphic material to share learning outcomes.

References

Garrison, D. R. (2003). Cognitive presence for effective asynchronous online learning: The role of reflective inquiry, self-direction and metacognition. *Elements of quality online education: Practice and direction*, *4*(1), 47-58.

Garrison, D. R. (2017). *E-learning in the 21st century: A community of inquiry framework for research and practice (3rd edition).* Routledge/Taylor & Francis.

Watson, S., Sullivan, D. P., & Watson, K. (2023). Teaching Presence in Asynchronous Online Classes: It's Not Just a Façade. *Online Learning*, *27*(2), 288-303.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.

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Strategies for digital-first learning design

There is a range of digital-first learning strategies that can be applied in a HyFlex classroom.

Figure 1. Strategies for digital-first design

1. **Chunking content** to reduce cognitive load and improve student engagement.

Chunking (also called micro-lectures when applied to video) is a form of sequential self-directed learning that involves breaking down and selecting content for sharing. Features include:

   - Breaking away from traditional lectures (online or on campus)
   - Rethinking the use of video, audio and animation tools to segment ideas into smaller bite-size chunks aligned with unit or module requirements, e.g., videos no more than 20 minutes long (pseudo lectures)
   - Creative use of text, images, hyperlinks, images, posters, graphics and other communication means

2. Astute use of **file formats** and accessibility across platforms and within bandwidth limits, e.g., understanding of the difference between PPT and PDF or Word and PDF.
3. Providing **access to all content** to all learners at all times—not privileging those who attend synchronous events.
4. Using **design elements** within the LMS, such as accordions, drop-downs, tabs, call-out boxes, and headings/banners, for clear communication and accessibility.
5. Inclusion of **interactive elements** such as quizzes, polls, H5P artefacts, and choice of student response (e.g., within the LMS or beyond using separate tools).
6. **Collaborative elements** that support community sharing and discourse for deeper learning using tools such as Padlet and Voicethread.

Resources to browse to learn more about chunking

Humphries, B., & Clark, D. (2021). An examination of student preference for traditional didactic or chunking teaching strategies in an online learning environment. *Research in Learning Technology, 29*. https://journal.alt.ac.uk/index.php/rlt/article/view/2405

Major, A., & Calandrino, T. (2018). Beyond chunking: Micro-learning secrets for effective online design. *FDLA Journal*, 3(1), 13. https://nsuworks.nova.edu/fdla-journal/vol3/iss1/13/

Educause. (2012). 7 things you should know about microlectures. https://library.educause.edu/resources/2012/11/7-things-you-should-know-about-microlectures

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Case Study

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https://usq.pressbooks.pub/hyflex/?p=223#h5p-11

Reflection

Adopting and Applying Digital-First Design

From the literature:

Pre-empting your own reflection on digital-first learning design you are encouraged to explore the two examples below for ideas and inspiration.

Example 1

In a large and busy central London university the course lecturer Chaudhury, (2023) describes a storytelling approach to sharing content online using MS Sway as the communication tool. This approach replaced some/most of the online 'lecture' creating an asynchornous learning experience. Although not focusing on asynchronous student-student interactions it is a good example of stepping into digital-first design, using a new tool and constructing content for higher student engagement. The author commented:

> This **"digital-first"** approach, referring to the fact that the education model was designed to be delivered without in-person interaction if required, meant that many of the engagement problems that MOOCs face were relevant here as well (Chaudhury, 2023, p. 216).

Example 2

During the COVID pandemic three leading USA universities (MIT, Stanford, Harvard) developed independent digital-first approaches to online learning and then came together to share and reflect on these experiences. This article (Dede & Lidwell, 2023) discusses the possible emergence of a next-generation model for massive digital hybrid learning based on experiences and developments.

The Harvard experience shares:

> The default format of instruction changed from hour-long face-to-face courses to short-form digital content with flexible opportunities for interaction. **Digital-first experiences** move beyond transferring face-to-face instructional strategies to an online format (a PDF of the classroom) to instead building on the many short-form digital assets created by Harvard during the pandemic. Hybrid experiences can draw on multiple modalities to personalize learning to students' preferred approaches (Dede & Lidwell, 2023, p. 2).

Your Reflection

How will you combine strategies and elements into the learning design process in order to enable digital-first design?

Think about this in your context and in consideration of the support and collaboration provided in your institution:

- Where are you on the digital-first scale? Not at all – Somewhat – Getting there – Completely
- What is your usual process for designing learning? Can the elements and strategies be integrated into this process?

- Which of the elements and strategies will you consider adopting? e.g., consider the element of 'Teacher Presence' for asynchronous learning and what technology you have available to apply this.

References

Chaudhury, P. (2023). Asynchronous learning design—Lessons for the post-pandemic world of higher education. *The Journal of Economic Education*, *54*(2), 214-223. https://doi.org/10.1080/00220485.2023.2174233

Dede, C., & Lidwell, W. (2023). Developing a next-generation model for massive digital learning. *Education Sciences*, *13*(8), 845. https://doi.org/10.3390/educsci13080845

Quiz

Try our digital first design quiz to see how digital you are.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=226#h5p-14

PART V

ASSESSMENT

Good assessment design can help keep the learner motivated. Assessment can take many forms, including final summative assessment and formative ongoing feedback. On the whole, students come to an educational institution to receive some kind of award for their learning, and judgement is made through assessment.

A well-designed assessment should make it more difficult for a student to skip the content and go straight to the end task. Furthermore, the students should be highly motivated to engage if the context of the assessment and the content are well aligned and if they are given a choice for output. This is part of constructive alignment as described by Biggs and Tang (1999). The research by Biggs and Tang (1999) is updated regularly and is a great place to start with practical examples.

Let's take constructive alignment one step further and consider HyFlex assessment. Giving students elements of choice will further positively impact their motivation.

References

Biggs, J. (n.d.). Constructive alignment. https://www.johnbiggs.com.au/academic/constructive-alignment/

Biggs, J., & Tang, C. (1999). *Teaching for quality learning at university.* 1st edition McGraw-hill education.

Biggs, J., Tang, C., & Kennedy, G. (2022). *Teaching for quality learning at university 5e*. McGraw-hill education.

Flexible Assessment

Here are some examples of how you can make assessment flexible. Offering more than one option builds into that student's choice.

Presenting their knowledge

Give multiple options about how the students will show you what they know. Include opportunities for students to use some of the skills they have. Someone who is good at essay writing is very privileged when all of the assessment is writing essays. Someone who is good at making videos would be equally privileged if all the assessments were video presentations. Allow the student to choose the best support for them to achieve at the highest level. Creating a digital artefact (with a choice of tool) encourages transliteracy skills and clear communication of ideas through the use of multimedia.

Selecting the part of their knowledge

Allow and encourage students to pick from a range of questions/topics. Well-designed assessment tasks should be able to provide multiple options without losing any equivalence in the demonstration of learning. A good rubric and clear criteria provide a scaffold for a marker-to-grade assessment that may look a little different to each other.

Develop their own questions and doing the research

The learner can be given the opportunity to be a researcher and not just a presenter of their knowledge. Supporting the learner to investigate an area of interest within the guidelines for the course will support their skill development in inquiry as well as their motivation.

Working on a project in a team

Group work is rarely popular; however, it allows learners to acquire new skills in communication, collaboration and co-creation. These are especially vital when working virtually. One approach is to require some co-created work, such as a website, in conjunction with individual work, such as a multimedia artefact to embed on the website or a personal reflection (or both!).

For team projects, the following checklist will help:

- How will students communicate online? (provide the facility or leave it up to them? Do you need evidence of communication? Is this evidence part of the assessment?)
- Where will they store planning notes and ideas? (do you need to see process or final product, or both?)
- Where will the final collaborative product be available? (presumably online?)
- Will the final product be visible to other students?

Beatty (2024) provides tips for HyFlex group work and states:

> The largest difference may be that dedicating class time for group discussion and process time may not be as effective with "mixed-mode" groups since some

students may not be present in the synchronous session.

Authentic tasks that seamlessly integrate with the discipline content

Authentic tasks are relevant to the learner and highly motivating. This includes encouraging the learner to connect with professionals in their field and draw on their knowledge. Good learning design will weave the authentic task into the actual learning of the content so that the learner may not be aware of the learning or the assessment.

Although students may find working with digital media challenging, if scaffolding and choice are provided, the experience can build confidence in online tools and mastery of creating communication pieces.

References

Beatty, B.J. (2024, July 30). Guidelines for Group Projects in a HyFlex Course. https://www.hyflexlearning.org/2024/07/30/guidelines-for-group-projects/

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Technologies to Support Assessment

With the advent of Web 2.0 nearly 20 years ago, in conjunction with the evolution of AI apps, there is a never-ending range of educational technology tools to use for assessment. Here is a list to kick start your thinking:

- Websites, blogs and online journals for formative and summative assessment such as the use of Blogger, WordPress, Wix, Weebly, Squarespace
- Portfolios to capture student reflections and record and demonstrate professional practice capabilities, often created using a website tool
- Rich Media Artefacts (video, audio, animation) modelled on the products of the profession using educational technology tools such as PowToons, Voicethread, Camtasia, Adobe Creative Cloud, AI apps such as Synthesia (video), Dalle-E-2 (Images)

Case Study

Digital Citizenship in Education (group assessment).

This case study describes an approach to a group assessment applied at the Masters degree level for practising educators who are extending their qualifications. The process, related technologies, student participation modes and expected outcomes are described in the artefact below. The assessment design provides an experiential, contextual, authentic and engaging task ensuring professional and practice-based learning outcomes.

Above all it aligns with the HyFlex attributes shared in this eBook:

- Choice: Group membership, topic/theme, group and individual artefact design approach and tool selection
- Flat Learning: Emphasis on peer-to-peer learning across time zones and modes prompting creative communication and collaboration approaches
- Accessibility: Selection of digital tools to ensure smooth communication and effective co-creation of artefacts

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=236#h5p-27

Reflection

Can assessment ever truly be flexible?

When designing flexible assessments, consider how to empower students by allowing them to develop their own research questions within course guidelines, fostering independent inquiry. If incorporating group work, carefully structure it to enhance online communication, collaboration, and co-creation skills, which are crucial in today's digital landscape. Strive to create authentic tasks that seamlessly blend with your discipline's content, increasing student motivation through real-world relevance. As you implement this flexible approach, be prepared to face challenges such as ensuring equitable assessment across different formats, managing increased grading complexity, and maintaining academic integrity. Address these issues proactively by developing clear rubrics, providing comprehensive guidelines, and leveraging appropriate technological tools to support both students and assessors throughout the process.

Pathways to go HyFlex

Consider and investigate your context and pathways to HyFlex assessment:

- How can you provide multiple options for students to present their knowledge (e.g., essays, video presentations, digital artefacts)?
- In what ways can you allow students to select which part of their knowledge to demonstrate while maintaining equivalence in learning outcomes?
- Which educational technologies (e.g., blogs, portfolios, rich media tools) could you use to support these flexible assessment options?

Quiz

Try your hand at our 10 question quiz to test your knowledge from this chapter.

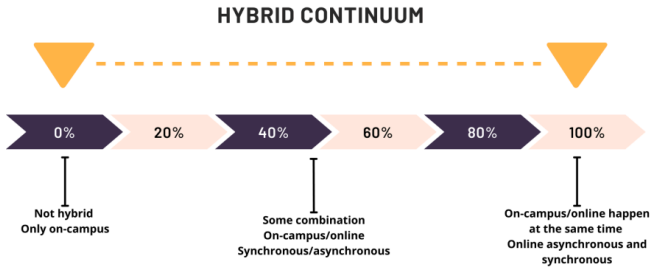
An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=240#h5p-21

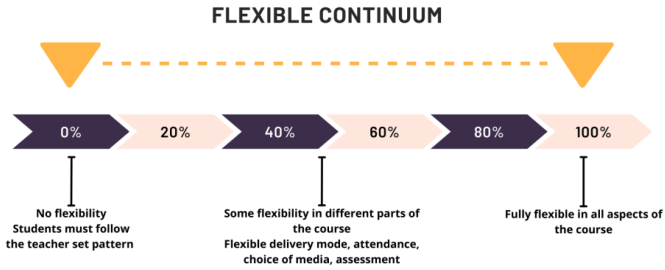
PART VI

PLANNING AND IMPLEMENTING

Before deciding what focus to take (and there will be choices of course!), we ask you to evaluate your context and how HyFlex that approach might already be.

There are two continuums: hybrid and flexible. Read the following descriptors to determine your and your institution's position on each scale.





When planning and implementing HyFlex learning, the challenge is how to leverage the unique opportunities provided by educational technology, including Web 2.0 online technologies, rather than to replicate face-to-face learning experiences.

Web 2.0 refers to online tools that are user-generated, open, and often free, such as a blog, a wiki or website, X, and media creation tools. Use of Web 2.0 tools escalated as of about 2005, affording user creation in addition to receiving information.

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- Flexible Continuum © Lisa Jacka is licensed under a CC BY-NC (Attribution NonCommercial) license

Planning Your HyFlex Environment

Take this opportunity to map out a **plan for HyFlex implementation**.

Consider previous information and discussions around HyFlex learning and teaching and choose what works for you right now in your context and where it might take you in the future. There is no template to follow, you are at liberty to use this opportunity to create something bespoke and useful.

Where you go with this is completely open; however, for those who need some scaffolding, here are some initial ideas of what you could produce:

- A whitepaper for your institution describing the attributes of HyFlex and recommendations for further discussion and planning
- A chart/diagram sharing barriers/enablers evident within your institution and your recommendations for overcoming them to provide HyFlex. Perhaps choose those barriers/enablers that are relevant:
    - Institutional
    - Technology
    - Personal (staff, student)
- A graphic sharing your interpretation of HyFlex to be used as a discussion point in a future workshop, for example:
- An audio file of a conversation or monologue sharing ideas, questions, and thoughts about HyFlex
- A video sharing current HyFlex learning (footage, screencasts etc.)
- A design plan for creating (or converting) a course into HyFlex considering the three attributes:

    - Choice
    - Flat learning
    - Access
- A statement about the change process, including why and how to go HyFlex
- A review and recommendations for educational technology to support HyFlex learning

Once your HyFlex learning and teaching plan is complete, you might like to share it with a colleague(s) for feedback.

Setting your goals

Use our planner to decide where you are now, where you want to be and how you might get there.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=247#h5p-12

The Change Process

HyFlex learning and teaching means that all students have an equivalent learning experience, whether they are online, on campus, or a combination of both (as per student choice). This may be a considerable change within your institution that requires careful management and implementation. You may have already started to consider this in your implementation plan overview, so now let's look at aspects of the change process in more detail for possible strategies. Remember that the change process will be unique to your context; however, there are established models and strategies to support what you want to achieve.

Consolidation-Innovation Cycle

The future doesn't just happen—it requires careful strategising for success. An organisation's innovation, development and growth often follows the **"Consolidation-Innovation Cycle"** (Lindsay, 2016). Consolidation of a shared vision and organisation-wide strategies work to enable vision for innovation and renewal. This relates to leadership strategies within an institution.

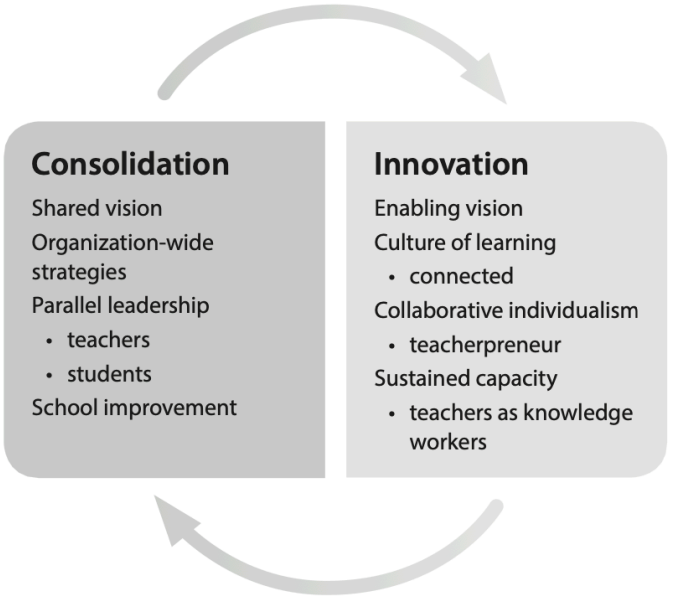

Figure 1: Consolidation-Innovation Cycle Leadership Approach (Lindsay, 2016).

Learn, Plan, Do

When aspiring to institutional digital transformation and, more specifically, HyFlex learning and teaching, the simple mantra "learn, plan, do" provides an organised structure.

Learn, Plan, Do is shared here as a simplified version of the 5-step Design Thinking Process as a strategy for you to organise change.

Learn (about consolidation):

- Define and share what it is you are trying to achieve e.g., HyFlex learning as an embedded learning and teaching approach

- Identify what is already happening at your institution e.g., who is already partly or fully HyFlex? What technologies and processes support this already?
- Identify potential barriers to further planning and implementation (barriers to change)

Plan (for innovation and change):

- Assess your institution's capabilities and aspirations
- Set goals and develop a roadmap for implementation
- Communicate the need for change and foster positive excitement and a shared vision

Do (apply innovation that leads to consolidation):

- Implement plans according to the roadmap and timeline in collaboration with stakeholders
- Evaluate the success and impact
- Realign and continue the 'Learn, Plan, Do' cycle when and as needed

ADKAR model for change

Another model for change that might be useful in your institution is the Prosci ADKAR model (Hiatt, 2006). This model provides a systematic approach to change at an individual level.

Remember: individuals want the new picture painted and then support strategies to be painted into the picture.

Once a change is identified, the ADKAR model provides a framework and sequence for managing people and change.

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https://usq.pressbooks.pub/hyflex/?p=258#h5p-25

When implementing HyFlex learning, the ADKAR model would be useful for mapping out the stakeholders in relation to communication strategies focused on affecting change. As we have already discussed, HyFlex adoption involves educational technologies that are often comforting for teachers and learners to understand and use. ADKAR provides a pathway for communicating what may happen, the impact, and how knowledge will be identified, measured and collectively built. It also provides for two-way communication and subsequent

strategising around stakeholder ability to make the change and how this will be reinforced. If applied appropriately, it opens the doorway to 2-way conversations about the change.

References

Hiatt, J. (2006). *ADKAR: a model for change in business, government, and our community*. Prosci Learning Center Publications.

Lindsay, J. (2016). *The global educator: Leveraging technology for collaborative learning & teaching*. International Society for Technology in Education.

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- The ADKAR Framework for HyFlex Learning © Hiatt, J adapted by Adapted by Lisa Jacka to provide a visual reinforcement of the principles.

Change Process Case Study

This case study shows how change process characteristics are being applied at the University of Southern Queensland through the **"Artificial Intelligence Pedagogy Project" (AIPP)**, an initiative focused on integration of Artificial Intelligence into learning, teaching, assessment and research.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=613#h5p-28

Building a Community of Practice for change

Refer to 'Elements of Digital-First Design' a chapter of Section IV to review Wenger's Communities of Practice (CoP) model.

The Artificial Intelligence Pedagogy Project revolves around a CoP called the Artificial Intelligence for Learning and Teaching Collective (AILTC). It is through this structure that members of the UniSQ community come together around the broad challenge of integrating AI into learning and teaching.

The Domain

The AILTC is an inclusive community of practice that aims to represent a wide range of perspectives, including those of educators, researchers, developers, students, policymakers and other stakeholders. The shared concern is how best to leverage AI within the higher education context. Key shared challenges include how to integrate AI into assessment, to support staff efficiency and to provide opportunities for all stakeholders that are equitable, ethical, and accessible.

The Practice

Under the umbrella of the AIPP, the AILTC holistically encourages connected and collaborative sharing of ideas, experiences and resources. The development of "champions" aims to inclusively provide support for the individuals and groups applying AI tools and affordances into learning and teaching. Collectively the goal is to learn how to use AI for the greater good and raise awareness, support the desire, knowledge and access to new ideas and practices, and foster ongoing collaboration to reinforce the change. The key mantra is that no individual should be expected to embrace change in isolation from others or be left to fend for themselves during an evolving change process.

The Community

As a CoP the AILTC provides ongoing virtual and in-person networking opportunities. It offers participants avenues to interact with peers, industry experts, and practitioners, thereby fostering collaboration and potentially catalysing new projects or research endeavours. A regular symposium brings the CoP together, including external AI thought leaders, to showcase AI-powered educational innovations, share best practices, and disseminate research findings to the broader academic community.

References

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.

Implementation logistics

When **designing for HyFlex implementation**, it is important to consider all variables, such as logistics. There may be specific considerations for your context; however, most can be categorised under the headings of **technology, faculty, and design.**

Technology

The technology requirements will be crucial to implementing your HyFlex environment. You may design your environment based on institutional technology restrictions or choose to have the technology put in place for you.

For a hybrid / HyFlex environment, you will need technology integrated into your on-campus environment, preferably so that the online and on-campus students feel connected to each other and the faculty member.

In a less integrated environment, students will still need to have an online presence through effective technology that may not be fully synchronous with the on-campus cohort.

For a fully online HyFlex model, a range of educational technology tools may be required for teaching presence, interaction, and collaboration in mostly asynchronous mode. This is where starting with tools like Voicethread and Padlet provide a base for developing a toolkit appropriate to your learning and teaching needs and expectations within the HyFlex environment.

Check with your Information Technology department and

Learning and Teaching advisors about the requirements you have to ascertain what they have and can provide.

Faculty

When organizing and designing curriculum and activities, the staff and students who will participate in the HyFlex experiences need to be considered.

Individual mindsets will impact the success of your implementation. If staff and students are open to trying new things, you are more likely to be successful. They will accept that not everything will work the first time and see this as part of the process rather than a reason not to continue.

However, consider whether the staff and/or students need support before, during, and after implementation. Also, determine how you will work with people who are the "noisy naysayers." This can quickly disrupt any attempt to introduce new approaches. Come armed with examples and research to help counteract the negative responses in the initial stages and reinforce (ADKAR) positive progress.

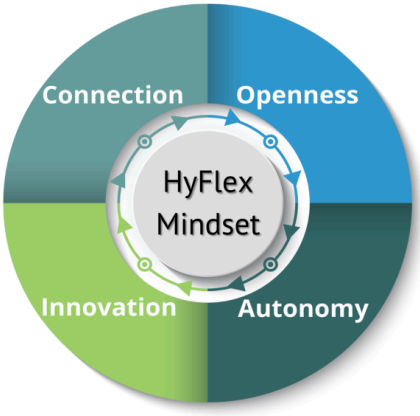
Approaches to implementation:

- A staged pilot is recommended to build up positive experiences among faculty to share, discuss, and problem solve.
- Find and encourage some fellow champions of the idea (often 'early adopters' of technology). Doing this by yourself is hard and can be demoralising.
- Start a community of practice or find one to join. It is also helpful to involve management to get them on board to support innovation.

HyFlex Mindset

The adoption of a common mindset enables educator readiness and a capacity for and disposition towards HyFlex learning initially as an innovative idea and then as an embedded practice. A mindset (belief or disposition) is either the enabler or the barrier to new ideas and practices. The model shared here (modified from Lindsay & Redmond, 2022) suggests that an iterative process empowers educators to develop skills, enables participation in online activities, and potentially further influences pedagogical approaches and shifts practice.

Key attributes of the **HyFlex mindset** are **connection, openness, autonomy and innovation**. These collectively represent a foundational structure that is instrumental to innovative practices and change.



Connection: the attribute of connection and connectivity implies digital fluency and an ability to work in online and blended learning environments. Connectivity enables the

educator to develop a network of like-minded colleagues supporting virtual working relationships by confidently applying both synchronous and asynchronous communication modes.

Openness: an educator who is "open" is understanding and receptive to other ways of knowing, as well as willing and able to adopt practices that embed sharing of ideas, resources and collaborations around learning. An open approach leads to a shift in pedagogy, a more flattened learning environment, less hierarchy in the learning process, and a shift in teacher-student relationships.

Autonomy: the attribute of autonomy relates to choice. An autonomous educator is able to make independent decisions in their learning environments about access to and use of digital and online technologies and the adoption of alternative pedagogies. More broadly, autonomy enables educators to be acknowledged as resilient leaders and risk-takers who cope well with change by adopting a flexible and agile approach.

Innovation: an innovative educator cultivates new approaches to learning among students and peers, with a focus on the sociability of learning, both online and offline. The focus is on processes, not just outcomes, for learning and assessment. Innovation in the HyFlex classroom when teaching and for learning is the new paradigm and is expected and acknowledged.

Design

Good design will help with implementation. Map out what you are doing and why. Identify the problem and let that guide your decisions. Always consider the user and design with an empathetic approach towards what they need and how you will support them.

When considering technology, faculty and design for your

HyFlex innovation, working in collaboration and partnership with others will be essential. This includes the institution's IT team and learning and teaching units (including learning designers and professional learning leaders). These partnerships could be crucial to success or at least to smooth stages of implementation.

Recommendations for Implementation

We have organised some key elements that we believe are necessary for successful integration under three approaches – Small, Medium and Full Scale.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=156#h5p-24

References

Lindsay, J. & Redmond, P. (2022). Online collaborative learning starts with the global collaborator mindset. *Educational Studies*, *50*(6), 1466–1484. https://dx.doi.org/10.1080/03055698.2022.2133957.

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Supporting HyFlex

HyFlex is about choice, flat learning and access, and this applies to how it is implemented and supported. What choices will teachers have when they start to embrace HyFlex about technology, design of learning, and support systems? Will access to support and tools be assured? How? How will flat learning be assured?

Moving into HyFlex learning and teaching means teachers must understand the affordance of educational technology and how to apply these for the aspects of HyFlex they are adopting. Two support structures may be useful: levels of readiness and the HyFlex mindset.

Levels of readiness

As part of the implementation, the people you work with will be at different levels of readiness across the stages of planning and implementing. Jacka (2015) found that a guide is a useful way to ascertain where a faculty member is in relation to engaging with new and emerging processes. As a "pre-test", this level of readiness guide can help in the planning stages to support what actions may be needed to best facilitate the implementation of HyFlex courses. This aligns with the ADKAR model's stages of desire, knowledge, and ability (Hiatt, 2006).

The tables below describes the characteristics that will be evident in the faculty in relation to each level.

Very low level of readiness *Level 0*	***Low level of readine*** *Level 1*
Pre-existing perceptions and experiences	
• Negative perceptions about HyFlex • Negative experiences in HyFlex • Negative experiences with technology	• More negative than • Negative experienc • Negative experienc
Characteristics that categorised the individual within this level	
• Can not see the benefit of using HyFlex • Would not use HyFlex • Believes there is no place for HyFlex in the current University setting	• Realised the poten • Barriers are high e • Demonstrates a co barriers • Motivated by their engagement with
Barriers keeping them within this level	
• Perceived amount of time required • Negative discourse from others • Lack of technical support from the university • Lack of skills • Lack of time to acquire skills and knowledge about HyFlex	• Perceived amount • Lack of skills • Negative feedback
Action required to move to the next level	

• Workshops and demonstrations highlighting the positive potential for the use of HyFlex in Universities • Positive discourse from others • Addressing fears and barriers • Research that promotes the use of HyFlex with empirical evidence across a sustained period of time	• Step by step guida workshops) • A majority of collea • Positive discourse f • Addressing fears a ways

Ready to implement *Level 2*	***Ready to implement and reimagine their teaching*** *Level 3*
Pre-existing perceptions and experiences	
• Positive perceptions about HyFlex • Positive experiences with HyFlex • Positive experiences with technology • Confident in their use of technology • Confident in their design skills	• Positive perceptions about HyFlex • Positive experiences with HyFlex • Positive experiences with technology • Experience implementing innovative practices • Confident in their use of technology
Characteristics that categorised the individual within this level	
• Barriers exist but are accompanied by solutions and are not high enough to restrict implementation • Demonstrate the ability to link the way they would use HyFlex to their current practices	• Excited about the use of HyFlex • Likely to initiate future uses of HyFlex • Barriers are acknowledged but supported by solutions
Barriers keeping them within this level	
• Not enough intrinsic or extrinsic motivation to invest the time in changing their current practices	• Lack of support within their institution to actually implement • Personal level of skills in creating HyFlex environments
Action required to move to the next level	

• Repeated use of HyFlex in a replicating manner with discussion about strategies • Rewarded for demonstrating innovative ideas • Support for innovation by the institution	• Rewarded for demonstrating innovative ideas • Support for innovation by the institution

References

Hiatt, J. (2006). ADKAR: a model for change in business, government, and our community. Prosci.

Jacka, L. (2015) Virtual worlds in pre-service teacher education: the introduction of virtual worlds in pre-service teacher education to foster innovative teaching-learning processes [dissertation]. Gold Coast (AU): Southern Cross University.

Quiz

Try these two quizzes to test your understanding of content from this chapter.

Quiz One – Flashcards of key ideas

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=256#h5p-22

Quiz Two – Choose the right word for the sentence

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://usq.pressbooks.pub/hyflex/?p=256#h5p-23

Reflection

Use this opportunity to reflect on the change process related to your goals for implementing HyFlex learning and teaching.

Consider:

- Understanding the process of change – has this chapter helped you at all?
- Changes you have experienced in the past (e.g., arrival of the Internet into education; proliferation of mobile devices and learning; the ubiquity of social media and its impact on education) and how they were approached by you personally and your professional context
- What key approaches resonate with you now? How will you share this information with others? (colleagues, leaders, learners)
- How will you go about implementing HyFlex learning and teaching?

PART VII
CONCLUSION

In this book we have:

Learned about:

- What HyFlex is, where it has come from, and what problem in learning it potentially solves
- The key attributes of HyFlex learning (choice, flat learning and access) combine to provide an equivalent learning experience for all students
- The need for appropriate educational technologies that support transformative pedagogies
- Potential barriers and enablers to HyFlex learning and teaching
- Pathways to HyFlex, including digital-first design strategies
- Models and approaches to driving innovation and change and supporting HyFlex

Explored, contemplated and discussed:

- Your own context with online learning and its relationship with what we are calling “HyFlex”.
- Your students and how best to support them with synchronous and asynchronous learning designs
- The role of educational technology and digital pathways to HyFlex
- The transformative potential of HyFlex and contextual pathways to move towards this
- Your institutional support systems and implementation logistics

Created:

- An initial plan for HyFlex learning and teaching specific to your (or other) context

Where to get Help

Launchpad

Now what? Which bits do you need to know more about? Which bits can you use now? What are your next steps to go HyFlex?

You may be interested to join Beatty's online HyFlex Learning Consortium where conversations and resources around HyFlex are collected and available.

This Digital Transformation Checklist (Educause) may be useful as you bring your ideas and needs together with a view to making the shift into HyFLex. It could help inform your own contextual checklist.

Get in touch

Dr Julie Lindsay and Dr Lisa Jacka

Final Reflection

Now you have reached the end of this resource...what next? We suggest you compile your thoughts into a final reflection.

Here are some ideas:

- Write a 500 word description of the benefits of HyFlex learning and teaching for colleagues to discuss at a school or faculty meeting
- Prepare a memo to go to a key leader in your context detailing advantages of the HyFlex approach and why your institution should consider implementation
- Consider the three attributes of HyFlex (Choice, Flat Learning, Accessibility) and how this impacts your approach to teaching and your students
- Reflect on how online learning will continue to evolve and the imperative of approaches such as HyFlex and AI integration to support the future of higher education

Whatever you do now, make sure you share your new understandings with others. Start conversations, debates, and focus on change for better learning outcomes.