reconnect

Reconnecting relationships through technology

Flexible Learning and the Virtual Campus

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Recent global events put a spotlight on learning modes that are flexible and support diverse learners. Vital to this conversation is a redefinition of the concept and practice of a 'virtual campus'. One in which learners have a renewed sense of place, inclusive of options for learning in synchronous and asynchronous modes. This paper proposes the principles of HyFlex design to facilitate the reconnection of students, teachers, and technology. Furthermore, these principles are extended into a new model of interconnected attributes - student choice, flat learning, and access. The discussion provides insights into these attributes and reimagines effective contextual approaches. Success through student-driven flexible and inclusive course design is shared encouraging the reader to consider their own adoption and adaption of these principles.

Keywords: HyFlex, Blended, Hybrid, Online, Asynchronous

Virtual campuses, defined as online spaces designed by institutions and organisations where learning takes place, have become more critical than ever. The experience of emergency remote teaching (ERT) spotlighted the capacity for higher education institutes (HEIs) to provide learning experiences despite pressure from unforeseen forces. Many students and academics were in unfamiliar waters as they navigated new ways of interacting with each other, content, and technology. In hindsight, there is no real reason HEIs could not have been better prepared, and those that already had virtual campuses did continue to provide for their students. Since the return to on-campus activities, it is evident that a) students do not necessarily want to be on-campus, and b) ERT is not the same as well-designed online teaching and learning. The challenge for learning designers, and academics, is how to best leverage the experiences from learning in lockdown aligned with knowledge gained from online learning and teaching in the past 30+ years. One solution is the hybrid model of teaching and learning and, more specifically, a HyFlex, student-driven approach.

The 2022 Horizon Report (Pelletier et al., 2022) puts hybrid and online learning as a key 'social trend' and the 'mainstreaming of Hybrid/Remote learning modes' in the 'key technologies and practice'. An interesting point is the identification of the need for a whole cultural shift to avoid any backlash from negative experiences of ERT. Pelletier et al. (2022) believe that this will require "changing hearts and minds, shifting the institution's culture, and rethinking the practice of education itself" (p. 26). This shift heralds not a new approach but a more systemic approach. One in which the idea of the virtual campus is symbiotic with the on-campus and one in which synchronous and asynchronous experiences are of equal value to the academic and the student.

Introducing HyFlex

The term HyFlex, first coined by Beatty (2006), combines 'hybrid' and 'flexible'. It has its roots in hybrid teaching and learning fueled by the rise in access to networked technologies. Beatty (2007) made an analogy of a bridge that links on-campus (on one side) and online (on the other). However, with the return to on-campus many students have chosen to stay online. As such, Beatty (2022) wondered if the bridge has been crossed. Has the online side of the river become the go-to place, and should the focus be on designing for HyFlex online?

Commonly, students in a hybrid course attend classes either online or on-campus and synchronous sessions would include a hybrid of students from both locations. Another approach might give students a choice about how and if they attend, allowing for flexibility. Also included in the options would be a robust asynchronous component. When the hybrid and the flexible merge, we have HyFlex. More importantly, what sets HyFlex apart from other types of hybrid learning is that it is a student-directed hybrid.

The definition of HyFlex developed for this paper is one in which students have the flexibility to choose the time, place, and mode in which they learn. They must still achieve the learning outcomes and the same level of

personal learning 'satisfaction' regardless of their choices. The modes include any combination of asynchronous, synchronous online and synchronous on-campus. Students can achieve their learning goals using any of these modes, but they are not dependent on each other. The learning designer is essential as they must masterfully design flexible experiences, provide choice, allow for student agency and autonomy, and meet the learning outcomes.

Context-specific HyFlex

Beatty (2019) developed four principles for HyFlex: choice, accessibility, reusability, and equivalency. However, the learning designer/teacher/instructor has flexibility around the extent that each of these is evident in the learning environment. For this paper, the authors' experience as learning designers and teachers in hybrid environments has been used to evaluate their work at a regional university in Australia and as a result they wish to propose a new model of intersecting HyFlex attributes. Figure 1 illustrates their proposition - flat learning, choice, and access as the three main attributes. Equivalency, connected learning design and reusability sit between these critical attributes. The following section discusses the three attributes and presents examples illustrating how HyFlex design and delivery have supported the reconnection of students, teachers, and technology.
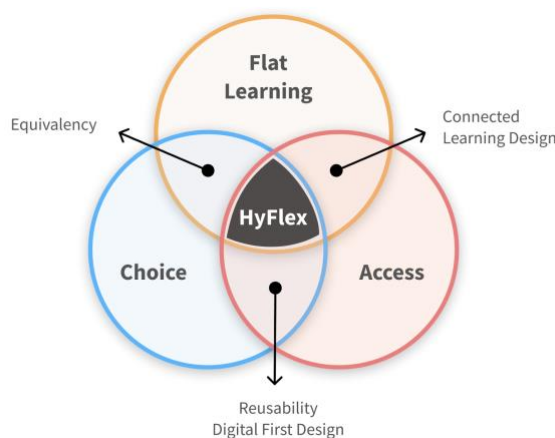

Figure 1: Context-specific attributes of HyFlex learning

The Attribute of Choice

Choice is the consistent and grounding factor in what makes a course HyFlex. When learners have a choice without compromising the learning experience, they have true flexibility. The choices must include access to multiple resources, pathways, multimedia, and modes.

The mantra of 'student-centred learning' is common in higher education. However, there is a difference between student-centred and learner-choice. The learning designer is responsible for creating courses that provide students with authentic learning experiences. These types of experiences may not provide choice when the learning designer has structured the experiences in a way that does not offer options yet may still be student centred. For there to be choice, the learning journey needs to be controlled by the learner with various ways to travel. One of the most challenging aspects of learner choice is that the teacher/instructor must be willing to 'let go' of a significant amount of control. They need to trust the student to make choices that may differ from those previously imagined by the designer/teacher/instructor and not cause disadvantage.

If the student is allowed to make choices, they will develop the necessary skills to create successful decisions about what they need to achieve the learning outcomes. When a student expresses their dislike for being given 'too many' choices, this is likely due to their unfamiliarity with this approach. In these circumstances, the designer/teacher/instructor must scaffold the experience without diminishing the choices. The student needs to be supported to explore the choices in a safe environment, one in which risk is considered a positive attribute to undertake.

One successful yet small change might be how students are offered an assignment task. For example, a list of topics to choose from (something that looks like student choice) can be shifted to ask the learner to formulate a

question to guide their research. The authors tried this and anecdotally observed an increase in learner autonomy and motivation. Ultimately this change returned a higher quality assignment and feedback from the students that they "enjoyed the assignment", hence reconnecting the learner to the learning.

Technology is central to why HyFlex environments can be created by providing multimedia resources and experiences. Increased access to technology means reduced barriers to producing quality resources by the designer and the student. Traditional instructional design recommends avoiding 'redundancy' of materials (Reiser & Dempsey, 2012). That would require eliminating all but one mode to say the same thing (text and image; video and text; audio and text). However, in a HyFlex model, having multiple ways for the learner to explore content initiates flexibility and assures that the learner is not 'missing' part of the learning. Consider that a learner may prefer to watch a short video rather than read the text. If the video and text are different, the student must engage with both modes or risk missing some of the information or learning experience.

The Attribute of Flat Learning

The main deviation from Beatty's principles that the authors are proposing is flat learning. Lindsay (2016) described this as a multimodal pedagogical approach to learning with and from others where all learners have the freedom to communicate 'across' rather than up or down. Hence there is a similarity to Hyflex, and is a term that encompasses all of Beatty's principles.

Flat learning means there is no hierarchy. No one group delivers information to another group, and all voices are equal. Online technologies are beneficial to help forge connections and support everyday workflow, communication, and collaboration. However, it is possible to have flat learning in on-campus environments and even more so if the experience is hybrid. The implicit message is that learning occurs not in isolation but is social and requires interaction. Reconnecting the student to the teacher and other students. Using flat learning as a framework for good design helps to situate the idea of working with others at a distance and in person. When the starting point is the assumption that it is possible to have a meaningful connection, communication, and collaboration using technologies, the results will follow.

HyFlex learning and teaching flattens all learning because good teaching is not about learning content or content delivery. Underpinning this is a social constructivist and connectivist context in which learners are connected through different modalities using various technologies (Web 2.0, mobile devices). The learning itself 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 within and beyond. Flat learning orchestrates choice and access by consistently providing all learning materials and opportunities for interaction and collaboration, hence reconnecting the student through the technology.

Flat learning can be initiated by minimising closed environments. All HEIs in Australia have Learning Management Systems. When a range of possible EdTech tools are also utilised, it can provide choice and access. Some tools include Padlet and VoiceThread, which have been used in the courses designed by the authors. These tools also provide access to guests outside, allowing experts to collaborate on ideas and concepts. A synchronous 'backchannel' is another way that EdTech can be leveraged. As Dalgarno (2014) described, polysynchronous approaches accept that students are likely to use back channels when working on assignments or listening to lectures. His work recognised that "Multiple streams of interaction can allow for a much more active learning experience" (p. 675). Current practice tends to divide the synchronous online and on-campus cohorts, and a backchannel using tools like Twitter, MS Teams chat, Padlet or a learning environment like Zoom or Engageli help to close that divide.

The Attribute of Access

Accessibility has multiple meanings depending on the person and the context. For HyFlex learning design, accessibility is about giving the learner options that provide flexible access to content, ideas, and collaborations. There must be access to the learning at a time and a place that best suits individual learners.

The importance of technology to facilitate access cannot be overstated. There are more ways than ever to access education 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. Data shows that participation rates in Australia for women increased from 513,420 in 2004 to 915,344 in 2020 (DEWR, 2022a, 2022b). Assistive technologies

have become much more commonplace, 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. Creating audio and video content is possible without access to high-end equipment. For example, a low-end video produced through screen recording zoom meetings means that a range of media can be produced and is acceptable. Increasingly the ease with which techniques such as captioning can be added to resources also increases access to the content in the resource.

The courses evaluated for this paper revealed that an essential part of the overall satisfaction and increase in access were the well-designed asynchronous experiences. Current technologies provide asynchronous experiences that provide high-quality interactions and allow the learner to choose when and how they will interact. The ongoing assumption that synchronous experiences are the lifeblood of learning – one in which the teacher interacts in real-time with the learner – needs to be critiqued.

Leveraging the Asynchronous

HyFlex refers to hybrid and flexible, but what does that look like when the mode is entirely online. The authors propose that hybrid could be between the asynchronous online learning space (a well-designed series of learning activities in the LMS), the synchronous online experience (tutorial, workshops, lectures in a video conferencing platform or Engageli), and the asynchronous online collaborative spaces (forums, Padlet or VoiceThread).

The authors found that leveraging asynchronous social learning spaces adds significant value to the students learning experience. In the HyFlex course, this experience is one of the students' choices, and success is due to the level of student motivation and engagement, not the requirement to participate. Unfortunately, many HEI courses still build asynchronous activity around text-based forums and discussion boards. At a time when students have become accustomed to asynchronous social networking that is informal, spontaneous, and often image or videos, the text-based forums no longer have the appeal that perhaps they once did (Clinton & Kelly, 2020). There are alternatives without moving the formal educational experience to social networking platforms. While there are numerous tools that are used in HEIs one tool that the authors have been using is VoiceThread.

VoiceThread, available since 2007, is a multi-purpose solution to the perplexing problem of HyFlex asynchronous online learning. As a tool, it can address an alternative to students not attending synchronous tutorials while encouraging community building and socialisation of learning. In one example, each of the designed VoiceThreads contained a series of slides, and each slide had a comment from the teacher with an activity for the students to do. A very sparse start grew organically as the students responded. One example of a practical approach was an asynchronous interview between two colleagues: teacher and discipline expert. The teacher left the first comment, and the colleague responded eight days later: flexibility and access for academics. The students started asking questions, and the one slide ended up being over 90 minutes of conversation from 45 comments and 11 students. The VoiceThread that housed the slide had 120 comments and 38 people viewing. That represented 100% of the enrolled students choosing to participate through flexible access, choice of response mode and flat learning with anyone, anytime.

Students were surveyed after the first iteration of the VoiceThread use and commented that they felt socially connected to their peers due to the nature of the technology. Over 80% of all student comments in the six-module topics were created using video, and a small percentage (around 7%) were text only. Students observed that they felt able to comment in ways that they would not have during a synchronous tutorial. They noticed the increase in participation from their peers and were very grateful for the opportunity. Reconnecting to their peers through the technology at a time when they were often stretched in their capacity to study, work and maintain family relationships.

Another example is where a research assessment came to life using VoiceThread for shared project development and peer review. This time each student added one slide, including a research question and draft method. For four weeks, peer and teacher comments and questions helped individuals refine and refocus their proposed research. Once the project was complete, they returned to the VoiceThread and shared outcomes. Students asynchronously had equal opportunity to share feedback and learn in ways not as effectively possible through synchronous modes or text-based forums.

What the authors discovered is the way that the VoiceThread grows through the student's participation. While the overall designs are well thought out, the teachers chose not to control the amount of student interaction. They generated their momentum through their conversations with each other. Most interestingly was the way the students perceived that they were collaborating, yet that was not explicitly built into the design.

Conclusion

This paper is presented as part evaluation and part provocation. One key idea is the interconnection between virtual and physical campuses through the application of designed asynchronous learning. Another is HyFlex learning and the attributes of choice, flat learning, and access that provide true flexibility for learners. Gone are the days when 'attendance' at synchronous (online or on-campus) events determined privileged access to learning, other learners, and essential resources. When implementing a HyFlex approach, the authors found that students flourished when empowered to make ongoing choices between learning modes. Ultimately once students have experienced flexibility, they have no desire to go back to being restricted in their learning experiences.

The authors ask the reader to consider their learning design and to what extent they are currently creating a HyFlex environment for their students. Furthermore, if they are not, why is that, and in what ways could they change their learning design and approach or overcome other barriers to include choice, flat learning and access.

Disclaimer: The authors are not affiliated with VoiceThread or HyFlex.

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