

Enhancing "HyFlex" Instruction: Best Practices, Criticisms, and Results from a **Case Study in Graduate Education**

Megan Brown 🛄 Metropolitan State University, USA

To cite this article:

Brown, M. (2024). Enhancing "HyFlex" instruction: Best practices, criticisms, and results from a case study in graduate education. International Journal of Studies in Education and Science (IJSES), 5(1), 43-54. https://doi.org/10.46328/ijses.81

The International Journal of Studies in Education and Science (IJSES) is a peer-reviewed scholarly online journal. This article may be used for research, teaching, and private study purposes. Authors alone are responsible for the contents of their articles. The journal owns the copyright of the articles. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of the research material. All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations regarding the submitted work.



EV NO 58 This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

2024, Vol. 5, No. 1, 43-54

»IJSES

https://doi.org/10.46328/ijses.81

Enhancing "HyFlex" Instruction: Best Practices, Criticisms, and Results from a Case Study in Graduate Education

Megan Brown

Article Info	Abstract
Article History	HyFlex learning (a course modality in which students have the week-to-week
Received:	option to attend either virtually or in-person) has gained prominence due to the
10 August 2023	increasing demand for flexible education options, especially in master's programs
22 December 2023	for working professionals. It is frequently touted as a solution to programs that
	want to include in-person requirements but struggle with enrollment challenges
	and need to increase flexibility. This paper discusses the conversion of a
	traditionally in-person course to a HyFlex Course and the adaption of several
Keywords	active-learning modules to the new course modality, answering the following
HyFlex Online education	research questions: 1) What are some identifiable best practices for HyFlex
Graduate instruction	instruction? 2) What type of active learning exercises are appropriate for HyFlex
Active learning	classrooms, and what active learning exercises are difficult to curate in a HyFlex
	environment? 3) What are the equity concerns in a HyFlex classroom, and how
	can instructors ensure that students have access to the same high-quality
	education? This research, which consists of a literature review of best practices
	and a case study applying lessons to the conversion of active-learning modules to
	HyFlex practice, found mixed results regarding student success in HyFlex courses,
	emphasizing the importance of addressing the unique challenges posed by this
	modality. Some issues that are discussed include concerns about lack of
	consistency, technical issues, difficulty engaging asynchronously, increased
	instructor workload, management challenges, and the need for effective
	communication. In conclusion, it finds that HyFlex teaching offers flexibility but
	presents challenges that educators and institutions must address to create a
	successful learning environment that meets the needs of all students. Awareness
	of potential issues and the implementation of best practices can help mitigate these
	challenges and enhance the effectiveness of HyFlex instruction.

Introduction

HyFlex teaching has emerged as a promising approach to course delivery in higher education. It allows students to choose between attending classes in-person, remotely, or asynchronously, giving them the flexibility to tailor their learning experience to their personal needs and preferences. In an era of decreasing enrollments in higher education, maximizing flexible modes of course delivery allows institutions to accommodate sections that include

both in-person and online learners (Beatty, 2019). After the COVID-19 pandemic forced universities to shift courses online, HyFlex gained even more attention as a potential solution to the challenges posed by remote learning and by the exigencies involved with attempting to bring back in-person instruction (Lockee, 2021; Naffi, 2020). This paper investigates the process of converting a traditionally in-person course into a HyFlex course and, more specifically, the adaptation of active-learning modules to this novel course modality while attending to equity concerns that are raised by the practice.

This paper answers the following research questions. First, what are currently identifiable best practices for HyFlex instruction? Second, what types of active learning exercises are suitable for HyFlex classrooms, and which ones prove challenging to curate within this unique educational environment? Finally, what equity concerns arise in a HyFlex classroom? To answer these questions, I draw upon both a literature review of best practices and a practical case study that applies lessons learned to the conversion of active-learning modules into the HyFlex format. I find that there are real advantages to HyFlex instruction with respect to enrollment and maintaining inperson learning options for students who want these opportunities. However, there are real downsides to HyFlex instruction as well, including increased instructor workload, difficulty translating certain active learning exercises effectively across modalities, lack of consistency, and technical challenges. These raise some equity concerns, especially in situations in which there are substantial differences in the quality of instruction between course modalities. These challenges must be addressed before HyFlex courses become the norm throughout higher education, especially for commuter campuses and universities that serve nontraditional students. By raising awareness of potential issues and advocating for the implementation of best practices, this paper aims to assist educational stakeholders in mitigating these challenges and enhancing the overall effectiveness of HyFlex instruction.

Literature Review and Best Practices Research

In this section, I will summarize the best practices for HyFlex teaching at the university level, based on recent research in the field. The "HyFlex" teaching strategy, which is short for "Hybrid-Flexible," was pioneered by Brian Beatty (2019) and his colleagues at San Francisco State University (SFSU) in the early 2000s. Beatty was in charge of a small residential master's program, which was trying to expand enrollment (Beatty, 2019). Because he wanted to maintain the in-person learning community available to local students while expanding the reach of the program geographically, he developed the first "HyFlex" courses that, according to the Academic Policies Committee at San Francisco State University, would include "sessions that allow students to choose whether to attend classes face-to-face or online, synchronously or asynchronously" (Beatty, 2019). Beatty describes the decision to create a HyFlex option this way:

"As it became clear that we needed an online option in our MA program, we were faced with the significant challenges of 1) no institutional support to build and grow a fully online program, 2) no proven faculty expertise in teaching fully online courses or serving fully online students, and 3) all current students were regionally located and their interest in a fully online program (which in a small program like ours would mean giving up the classroom program) was unknown but not expected to be high. Trying

to implement a fully online program within even a few years seemed like an impossible task, given our conditions." (Beatty, 2019)

From the beginning, then, HyFlex teaching has been created as a solution to questions of enrollment management. How can small programs justify offering smaller in-person classes when online students might bolster program numbers? If there aren't enough students in any one modality to create entirely new sections of a course, does the course default to the most flexible online option, or does it exclude students who may not be able to physically attend classes? The HyFlex model offers a compelling solution to this conundrum: let students decide.

Since this innovation, a variety of flexible hybrid course modalities have been described and implemented. In various university systems throughout the United States, including the Minnesota State University system, efforts are underway to standardize the definition of various modes of instruction, including HyFlex. The Minnesota State University system, in which faculty are represented by a labor union, the Inter-Faculty Organization, which bargains working conditions for faculty, recently implemented a 1-credit excess compensation for faculty who elect to teach HyFlex courses, and defined the standards by which a course would count as "HyFlex" ("Memorandum of Understanding," Inter-Faculty Organization and Minnesota State University System, July 2023). These standards include a specified number of meetings and the requirement that the faculty member be present in the classroom while students may select whatever course modality week by week. Despite different names and specific definitions, however, the HyFlex modality has some central features in common: an instructor must create learning opportunities for *all three* modalities (in-person, synchronous online, and asynchronous online), and students can choose from week to week or even during a class period what modality they would like to engage with course content.

Best Practices for HyFlex Course Delivery

Following the Covid pandemic, higher education institutions have flocked to HyFlex instruction as a solution to declining enrollment, health and safety concerns combined with their inherent unpredictability, and increasing demand for flexibility on the part of students. Research into the effects of this teaching model is still in infancy, but an emerging set of best practices are developing.

An aspirational discussion of what the authors call "dual mode" instruction identified four principles for university administrators who aim to introduce maximally flexible course delivery modes: "(1) All learning outcomes can be met irrespective of participation mode; (2) Teaching-learning activities are equitable across participation modes; (3) All students have equivalent opportunity to demonstrate achievement of learning outcomes; and (4) 'Online ready' design." (Roberts et al., 2022). How might these principles be achieved? In best-practice research investigating successful HyFlex course design, the following consensus emerged: 1- start course design with the most hands-off approach for the instructor, namely asynchronous course delivery; 2- maximize student engagement by adapting asynchronous active-learning techniques to other modalities; 3- ensure technological capabilities of classrooms, students, and instructors.

HyFlex Course Design

Nearly all the research on successful HyFlex course design emphasizes one thing: start with an online version of the course, and preferably an asynchronous version of the course (Koskinen, 2018). Certain aspects of good course design are relevant regardless of modality. For example, "backwards course design," or, starting with outcomes and working backward to develop the assessments to develop and determine success in meeting these outcomes, is good practice for in-person, online, or HyFlex classes (Wiggins & McTighe, 2005). But other aspects of course design are specific to HyFlex courses. To successfully implement HyFlex teaching, instructors need to design course content that is compatible with both in-person and remote delivery. Since a HyFlex modality requires accommodating in-person, synchronous, and asynchronous learners, this means creating in-person, synchronous, and asynchronous learners, this means creating in-person, synchronous, and asynchronous learners.

One study on HyFlex best practices suggests planning first for the asynchronous students before other delivery modes because "asynchronous course design requires additional considerations to ensure equity with the synchronous and face-to-face delivery modes" and "is also usually the most time-consuming to develop" (Barclay et al., n.d.). One approach that has been successful in HyFlex courses is the use of *modular design*, which breaks down course content into smaller, self-contained units that can be delivered in different formats. This approach allows instructors to tailor the delivery of each module to the needs of students attending in-person, remotely, or asynchronously. An equity concern is that materials must be easily accessible and engaging for all students, regardless of their mode of attendance, which typically creates more challenges for asynchronous learners.

One key aspect of HyFlex course design must be an attention to equity among the different modes of attendance. In fact, according to Platt et al. (2014), the question of whether online course delivery offers sufficiently equivalent learning opportunities when compared with in-person classes is a "a central concern" (p. 290). When considering equity, the focus is on making online options 'sufficiently equivalent,' since in-person learning has long been the standard. Because of this, best practices for online instruction (short videos, information presented in multiple ways, discussion boards, mini-lectures designed for online students, (Carr-Chellman and Duchastel, 2000), appropriate technologies (Parsell, 2014), being creative about promoting a variety of interactions between instructors and students, (T. Luo & Clifton, 2017).

In addition, all fundamental components of the course need to be equivalent: there should be online submission points for assessments, an easily accessible study guide made available through the course site (Carr-Chellman & Duchastel, 2000), and all activities need clear instructions (Yuskauskas et al., 2015). When considering equity concerns in HyFlex teaching, certain aspects of course design are simply good teaching, as with the advice about course design. However, there are special considerations that require extra attention to the students attending online. Instructors must be intentional in course design and delivery and ensure that all students have access to the same course materials, regardless of their mode of attendance, provide alternative modes of assessment that are accessible to all students, and be particularly sensitive to the needs of remote students, who may face unique challenges such as limited internet access or time zone differences.

Active Learning in HyFlex Environment: Maximizing Student Engagement

A major concern of HyFlex course modality is maximizing student engagement by successfully implementing active learning strategies across the three modes of engagement. Active learning - including, but not limited to, in-class exercises and discussions - have been shown to increase student learning and critical thinking (Rocca, 2010). Active learning and engagement is so crucial to successful learning that one of the most robust findings in the scholarship of teaching and learning involves the simple statement that students learn more when they are actively engaged with the material as well as with their professors and peers (Pascarella & Terenzini, 1991). Put simply: the person doing the most work in a classroom is doing the most learning (Barkley, 2009). With this said, strategies for engagement are very different between an in-person class, an online but synchronous zoom class. With the pandemic and the increasing retreat to asynchronous online instruction, there has been more scholarly work lately that aims to show strategies for maximizing engagement in asynchronous course instruction (Binnewies & Wang, 2019), but these engagement strategies are markedly different from strategies used in in-person classrooms.

Student engagement in course content is crucial to successful HyFlex course design. This is particularly the case because students are offered so much flexibility and choice in how to access course content: with the increase in options, students must demonstrate self-knowledge about what access strategies are best for them, and then choose those. In research on online course engagement, Zhou and Zhang (2023) found that student motivation is affected by the design of the course activities, suggesting that instructors need to expend constant effort to ensure that activities are related to the course content and continuously improved. Importantly, however, this study also found that extrinsic motivation is more important than intrinsic motivation in online course content, and that because of this may be better suited to non-traditional aged university students. Another study on engagement in graduate level HyFlex course work found that these engagement strategies were successful: "open and trustful interactions for student behavioral engagement, links with practice and learning support for emotional engagement, and links with practice, learning support and instructor's facilitation role for cognitive engagement" (Heilporn & Lakhal, 2021). Some best practices for increasing engagement in HyFlex courses include short videos (less than 5-10 minutes long), as well as embedding reflexive questions within those videos (Binnewies & Wang, 2019). Other engagement strategies outlined in Binnewise & Wang's 2019 study include asking students to use a journal to comment on their learning path, incorporating hands-on activities such as problem solving or simulations, and requiring authentic and peer review assessments. Other studies emphasize the importance of traditional active learning techniques, such as group discussions, case studies, and simulations. In addition, the HyFlex classroom does offer a special need for using technology to facilitate engagement, which might include polling tools, chat rooms, and discussion boards, which can help bridge the gap between in-person and remote students and foster a sense of community among all learners. The special difficulty of an instructor promoting engagement in a HyFlex course is the unpredictability of how students will access the course. If, for example, a large majority of students elect to attend asynchronously, leaving two students remaining in the in-person component of the course, this affects the possibility of authentic engagement in the in-person component. Conversely, if all students but one or two are in-person, the online joiners will perceive themselves as separated from the course. In HyFlex courses, instructors need to find ways to engage students attending in different modes of attendance.

Providing Technology Support and Instructor Availability

HyFlex instruction requires additional technological capabilities in classrooms as well as a higher degree of technological savvy among both instructors and students. The flexibility that HyFlex provides is constrained by available technology (Binnewies & Wang, 2019), and in the case of introducing new technology into classroom spaces, new technology must be appropriately used (in a pedagogically robust fashion) and also be effectively taught to new users (Mantooth et al., 2021). In particular, the audio quality within classrooms is crucial to an effective learning environment, and one that is plagued with challenges in a HyFlex classroom (Butler et al., 2017). This necessity increases the demand for competent technology campus professionals who will need to maintain classroom equipment and offer on-call support for students and faculty (Detyna et al., 2023). This support ranges from basic technology support - providing instruction on proper Zoom etiquette, introduction to course management software, etc. - as well as course-specific support. Some research suggests that instructor availability is more important for HyFlex models than other modalities, and that instructors should offer multiple channels for communication, including email, virtual office hours, discussion forums, and even text/phone calls to accommodate students' schedules and preferences. For instructors who are not comfortable with technology, the extent to which they will be expected to serve as technology support can be intimidating, and if universities are unable to provide actual on-site/on-demand technology support for students, this modality may not be practical (Beatty, 2019).

Case Study: Adapting an In-Person Graduate Course to HyFlex

For this case study, I converted a previously in-person or synchronous online class into a HyFlex class. This class is the first course for Master of Advocacy and Political Leadership (MAPL) students, a 2-year master's program that emphasizes practical politics, relationship-building, and advocacy. This master's degree is a flexible program designed for working professionals: classes meet on Friday nights and Saturdays and students are encouraged to work at their own pace. Despite emphasizing flexibility, however, the program also prioritizes in-person relationship-building. Because of this, we operate using a cohort model that encourages students to take core classes in order so that they remain with the same students throughout. Relationship building and networking are, of course, central to politics and advocacy, and as a practical political program, we are unwilling to move completely online.

The HyFlex offering was made of necessity. Since the pandemic proved to students that online coursework was possible, there has been increasing demand for online-only versions of programs – especially master's programs for working professionals. Because of this, and because the MAPL program has a history of admitting students from outside our immediate geographic area, we made a commitment to students that they would be able to complete the entirety of the MAPL program online. This has resulted in 2 students joining the program from out of state, and we are committed to providing them with the courses needed to graduate. However, with only 2 students who aim to take the program completely online, we do not have the numbers necessary to offer fully online sections of courses. Since we are not interested in defaulting to *only* online for all students, we needed a creative way to support both online and in-person students in the same section.

The report below discusses the adaptation of several active learning exercises to the HyFlex course modality. Following this, qualitative feedback was collected from two sources: first, the students enrolled in the course, and second, outside observers who were brought in to provide feedback as a part of an online course improvement initiative at the University. In addition, I also tracked attendance and mode of attendance for each course period to try to observe patterns.

Active Learning Lesson Example: A Jigsaw Activity Investigating Policy Tools

Rather than describe the entirety of the alterations made to the course to convert it into a HyFlex modality, I will describe one specific lesson in detail, which illustrates some of the challenges in adapting active learning strategies first designed for in-person work to a HyFlex course. This lesson centers on a jigsaw activity using *The Tools of Government: A Guide to the New Governance* (2002), edited by Lester Saloman. A jigsaw activity is a form of active learning in which students are responsible for learning specific components of the material before teaching that material to their fellow students. As an activity, it leverages research that teaching others is an especially effective retention strategy (Dhage, Patil, and Pawar, 2017). The objective of this lesson is to deepen the students' understanding of the various tools of government, to enhance students' ability to work collaboratively and to communicate effectively, and to develop critical thinking skills in analyzing and evaluating government policies and interventions.

This activity is introduced during week 5 of the course, after defining "policy," introducing the differences between laws, administrative rulemaking, and regulations as sources of policy development, and discussing the importance of understanding government action as containing different "tools" that mediate the activity of government as well as private (nongovernmental, private sector, nonprofit) actors. The class learns the mechanism of the "jigsaw" activity, specifically that they will work in groups to become experts on specific topics and then share their knowledge with the class. Together, we then work to solicit feedback from the class on which "tools" they would like to discuss and assign each "expert group" a specific chapter based on the decision from the class.

The week of the activity, students first meet in their expert groups, where students spend 20 minutes discussing their assigned chapter and identifying key concepts, examples, and arguments. Students then work collaboratively to create a summary of their chapter using the graphic organizer on Google Docs. Then, students are split into integrated "jigsaw" groups for 30 minutes. The instructor rearranges the groups so that each new group has at least one member from each of the expert groups, and in their new groups, students take turns sharing their expertise on their assigned chapter with the other members of the group. As each student presents their chapter, the other members will take notes and ask questions for clarification. Discussion and debate are encouraged among the group members to consolidate knowledge from the activity. To conclude, I bring the class back together and ask each group to summarize their discussion and highlight the key points they learned from their peers before facilitating a class-wide discussion on the strengths and weaknesses of the different tools of government, and how they can be used to achieve public policy goals. Assessing student learning involves observing students during the activity to ensure they are engaging in active learning and collaborative work and assessing the quality of the expert group summaries and the jigsaw group presentations. Finally, students' participation and contribution to

the class-wide discussion are evaluated.

I have done a version of this jigsaw activity for in-person classes and all-zoom classes. In the in-person classes, I arranged learners to meet in small groups during class; in all-zoom classes, I arranged learners into breakout zoom rooms. I have used printed graphic organizers in the past but transitioned to the shared Google Doc when doing this activity online.

Reflection: Challenges of HyFlex Modalities and Criticisms According to Students/Instructors

How did course observers, students, and the instructor reflect on the experience of engaging in a HyFlex version of a jigsaw activity? Here, I will provide reflections from a variety of sources, distilling lessons from comments made by students, observers, and my own experiences as the instructor. To begin, I note that several of the 'best practices' identified as crucial to a successful HyFlex course were not possible: the most significant departure from suggested 'best practices' was that the course began as an in-person course, and asynchronous activities were created after the conversion. However, there are several criticisms or challenges associated with HyFlex teaching that deserve attention.

Technology Issues: During the height of the pandemic, many of us made do with imperfect technology setups. However, now that we are out of the immediate crisis mode, many of the same technological issues remain. During this HyFlex lesson, the technological issues centered on two key issues: 1- the mixed quality of the audio, and the different experiences of online students and in-person students during class; 2- the social norms being created with respect to being 'in the room' during online engagement. For this lesson, I had two observers: one who attended both as an in-person and online student, and one technology professional to check the sound quality of the HyFlex room. After discussing with the observers, the first realization was that the software for the room's audio had not been updated for several years, even though I had held HyFlex classes in the room for the previous weeks. The software update helped the online audio experience, but there were still moments when the audio cut in and out for the online participants. The in-person/online observer noted that the quality of voice of speakers and seating arrangement in the room affects whether the microphone picks up comments for the online participants. Additionally, she noted that any amount of crosstalk during the HyFlex lesson is impossible for the online participants to track and detracts from the experience: in written feedback, she noted "the smallest sound like opening a bag of chips is overwhelming for online students." This feedback made it clear that adapting traditional in-person classes to HyFlex instruction without preparing students for different behavior norms is doomed to fail online students. While an in-person discussion can proceed with a fair amount of crosstalk - and during impassioned discussions, crosstalk is common - its presence in a HyFlex classroom ensures online participants are unable to fully participate. While an in-person student may be used to having a snack during a late-night class, the smallest extra noise is untenable in a HyFlex classroom. The second major observation centered on online students. The online/in-person observer questioned whether online participants were "in the room," since they all had their cameras off and would turn on their cameras only while speaking. Observer noted that this creates some difficulties in a HyFlex classroom because the "video provides connection and provides visual cues that the student is speaking." Here emerged another persistent problem with the technological expectations and technological requirements of participation. Some online students were participating via their phones, in areas with spotty internet reception, and could only find bandwidth for camera use occasionally; others had different reasons for keeping their cameras off. This is another area in which student choice and autonomy is paramount: a constant equity hum since the early days of the pandemic has cautioned against instructors requiring "on camera" zoom participation. While these technological issues are difficult in all-online classes, in a HyFlex classroom, there are additional feelings of isolation and frustration, especially if remote students feel that they are missing what happens in an in-person class. To conclude, it is crucial for in-classroom technology to be stellar to accommodate the multiple needs of a HyFlex class, and instructors must establish specific ground rules for in-person attendees to limit crosstalk and extraneous noise to maximize the experience.

Difficulty Engaging: The purpose behind creating a HyFlex version of the course under discussion was to maintain the ability for those who wanted to attend in person to attend in person. That said, after the first day in which all students except those who were physically distant joined, most students opted to attend online. This is consistent with research which has found that students in HyFlex courses tended to prefer remote attendance over in-person attendance, despite having the option to attend in-person. The authors suggest that this may be due to the perceived convenience and flexibility of remote attendance, which can be more appealing to students than attending inperson. However, this preference for remote attendance may come at a cost: students who attend in-person classes tend to be more engaged and achieve better learning outcomes than those who attend remotely. This is because in-person attendance provides opportunities for interaction with peers and instructors, which can lead to more meaningful learning experiences. As one observer of the activity mentioned, "classes that are contingent on a sense of community and student connections may not be a good candidate for HyFlex," emphasizing that students are primed to take the more convenient attendance option even if they also desire in-person camaraderie. In addition, when students are given maximum flexibility, they may be more likely to procrastinate or delay completing assignments, leading to a decrease in overall engagement and motivation. This can also result in lower levels of achievement and satisfaction with the course. Once students in this course found that online attendance was the norm, in-person attendance dropped dramatically unless the instructor specifically created in-person programming outside of class to encourage in-person attendance. Despite more frequently attending the course online, students reported feeling a sense of ownership over their choices and remained engaged with the course.

Lack of Consistency: The highlight of HyFlex is its flexibility and student-autonomy in selecting how to access course content. However, this degree of autonomy can be difficult for both students and for instructors. One of the most common criticisms of HyFlex teaching is the perceived lack of consistency in course delivery. The Jigsaw activity required multiple settings and re-settings of breakout rooms – the expert groups and integrated groups must be pre-planned and distributed to the class so that there is even distribution of topics. However, since the HyFlex class design allows students choice over how they will arrive in class, the instructor could not know in advance who would be in person and who would be online. Although ideally breakout rooms could match online / online participants and in-person / in-person participants, this was not possible given the division of the reading assignments and the unpredictability of who was in the class. While other options for other types of activities might allow for creating online / in-person groups, a pre-planned jigsaw activity does not allow for that type of flexibility. For this activity, this is impossible in a HyFlex model, and would only be possible if the online

participants were known ahead of time and both groups were of sufficient numbers. This required working through some confusion and frustration in the room during the exercise and relying on students to bring their own laptops to zoom in participants when required. This experience, while technically possible, suggested to me that a jigsaw activity is ill-suited for HyFlex instruction due to the incredible amount of improvisation required in a very structured activity.

Increased Faculty Workload: There's no way around it: HyFlex teaching requires a significant amount of additional work for instructors. Instructors must create and deliver content that is accessible and engaging for all students, regardless of their mode of attendance, which, if done well, requires creating separate engagements for asynchronous, synchronous, AND in-person attendance. Meanwhile, the technological savvy required for running the HyFlex classroom is quite intense, and instructors who are insecure about their technology knowledge will struggle. It also requires extra labor during instruction, as toggling between in-person and online engagements requires paying attention to a screen, chat, video, audio, and learners who are in the class. This can be especially challenging for instructors who are new to online teaching or who have limited experience with instructional technology. The physical monitoring of the online and in-person classes is difficult. Instructor must take time to assign breakout rooms and monitor the chat while other things are happening in the room. In addition to this, HyFlex courses can be complex to manage, with multiple modes of attendance and different learning objectives for each mode.

Even the simple act of marking attendance requires instructors to be able to track and manage student progress across asynchronous, synchronous, and in-person modalities, as well as provide support and feedback to students as needed in each mode. Without strong recordkeeping, this is impossible, and even with strong skills it requires a significant amount of time and effort. During the jigsaw exercise under reflection, the observer noted the amount of time spent setting up electronic rooms, and suggested a TA might help alleviate the extra work and help the class flow more smoothly. Finally, the amount of communication required to successfully implement a HyFlex classroom is much more labor intensive than either completely online or completely in-person courses. Instructors must be willing to use multiple forms of communication with learners for HyFlex to be effective. This means holding virtual and in-person office hours, making calendars available for students to directly set up meetings, emailing, texting, and calling to ensure that messages are received. It is incredibly challenging to maintain effective communication with students who are attending in different modes and who require different communication modes. Instructors must be able to communicate clearly and consistently with all students, regardless of their mode of attendance, which can require a significant amount of planning and coordination.

Conclusion

While HyFlex teaching offers many benefits, it is not without its challenges. From the student perspective, there are concerns about lack of consistency, technical issues, lack of engagement, and potential for inequity. From the instructor's perspective, there are concerns about increased workload, management challenges, quality control, and communication. Overall, while HyFlex teaching can provide a flexible and convenient learning experience, it is important to consider the potential trade-offs between flexibility and engagement, and to take steps to ensure

that all students are motivated and engaged in the course material, regardless of their mode of attendance. However, by being aware of these potential challenges and taking steps to address them, instructors can create a successful HyFlex learning environment that meets the needs of all students. By designing courses with modular content, maximizing student engagement, providing flexibility and support, ensuring equitable learning opportunities, and continuously assessing and improving the course, instructors can create a successful HyFlex learning environment. As universities continue to adapt to changing circumstances, HyFlex course modality is likely to grow in relevance.

References

- Barclay, A., Ceccolini, K., Clarke, K., Domonchuk, N., Shapiro, S., Singh, J., Young, M., & Hayman, J. (n.d.). HyFlex Course Design and Teaching Strategies.
- Barkley, E. (2009). Student Engagement Techniques: A Handbook for College Faculty. Jossey-Bass.
- Beatty, B. J. (2020). *Beginnings: Where does Hybrid-Flexible come from?* EdTech Books. https://edtechbooks.org/hyflex/book_intro
- Binnewies, S., & Wang, Z. (2019). Challenges of Student Equity and Engagement in a HyFlex Course. In C. N. Allan, C. Campbell, & J. Crough (Eds.), *Blended Learning Designs in STEM Higher Education: Putting Learning First* (pp. 209–230). Springer. https://doi.org/10.1007/978-981-13-6982-7_12
- Butler, R., Rhodes, J., & Karodia, N. (2017). Does A 'good' Learning Space, As Determined by The Student Body, Lead to Enhanced Teaching and Learning And/Or Student Satisfaction? *Proceedings of EDULEARN17 Conference*.
- Detyna, M., Sanchez-Pizani, R., Giampietro, V., Dommett, E. J., & Dyer, K. (2023). Hybrid flexible (HyFlex) teaching and learning: Climbing the mountain of implementation challenges for synchronous online and face-to-face seminars during a pandemic. *Learning Environments Research*, 26(1), 145–159. https://doi.org/10.1007/s10984-022-09408-y
- Dhage, J. R., Patil, M.S. Pawar, A.B. (2017). Implementation and Feedback Analysis of Jigsaw Active Learning Method. *Journal of Engineering Education Transformations*, 30(3).
- Heilporn, G., & Lakhal, S. (2021). Converting a graduate-level course into a HyFlex modality: What are effective engagement strategies? *The International Journal of Management Education*, 19(1), 100454. https://doi.org/10.1016/j.ijme.2021.100454
- Helms, J. (2014). Comparing Student Performance in Online and Face to Face Delivery Modalities. *Journal of Asynchronous Learning Networks*, 18(1).
- Koskinen, M. (2018). Understanding the Needs of Adult Graduate Students: An Exploratory Case Study of a HyFlex Learning Environment. Northeastern University.
- Lieberman, M. (2018). *Introducing a New(-ish) Learning Mode: Blendflex/Hyflex*. Inside Higher Ed. https://www.insidehighered.com/digital-learning/article/2018/01/24/blendflex-lets-students-toggle-between-online-or-face-face.
- Lockee, B. B. (2021). Online education in the post-COVID era. *Nature Electronics*, 4(1), Article 1. https://doi.org/10.1038/s41928-020-00534-0
- Mantooth, R., Usher, E. L., & Love, A. M. A. (2021). Changing classrooms bring new questions: Environmental

influences, self-efficacy, and academic achievement. *Learning Environments Research*, 24(3), 519–535. https://doi.org/10.1007/s10984-020-09341-y

- Naffi, N. (2020). The Hybrid-Flexible Course Design Model (HyFlex): A Pedagogical Strategy for Uncertain Times. Revue Internationale Des Technologies En Pédagogie Universitaire / International Journal of Technologies in Higher Education, 17(2), 136–143. https://doi.org/10.18162/ritpu-2020-v17n2-14
- Pascarella, E. T., & Terenzini, P. T. (1991). How College Affects Students: Findings and Insights from Twenty Years of Research. Jossey-Bass Inc.
- Roberts, P., Scott, S. V., Cranney, J., Cumming, T. M., Angstmann, E., Nehme, M., & Watson, K. (2022). Design principles for dual mode readiness in an uncertain future. *Innovations in Education and Teaching International*, 0(0), 1–11. https://doi.org/10.1080/14703297.2022.2147094
- Rocca, K. A. (2010). Student Participation in the College Classroom: An Extended Multidisciplinary Literature Review. *Communication Education*, *59*(2), 185–213. https://doi.org/10.1080/03634520903505936

Wiggins, G., & McTighe, J. (2005). Understanding by Design. ASCD.

Zhou, Z., & Zhang, Y. (2023). Intrinsic and Extrinsic Motivation in Distance Education: A Self-Determination Perspective. American Journal of Distance Education, 0(0), 1–14. https://doi.org/10.1080/08923647.2023.2177032

Author Information

Megan Brown

https://orcid.org/0009-0007-7381-6325
Metropolitan State University
700 E. 7th Street, Saint Paul, Minnesota 55106-5000
USA
Contact e-mail: megan.brown@metrostate.edu