True Story: The HyFlex Experience Across Disciplines

Kenyada McLeod
Brightpoint Community College, kmcleod@brightpoint.edu
Pradnya Patet
Brightpoint Community College, ppatet@brightpoint.edu
Crystal Miller
Brightpoint Community College, cmiller-liggon@brightpoint.edu
Steve Carlisle
Brightpoint Community College, scarlisle@brightpoint.edu
LaToya Reynolds
Brightpoint Community College, Lreynolds@brightpoint.edu

See next page for additional authors

Follow this and additional works at: https://commons.vccs.edu/inquiry

Part of the Higher Education Commons, and the Online and Distance Education Commons

True Story: The HyFlex Experience Across Disciplines

Authors

Kenyada McLeod, Pradnya Patet, Crystal Miller, Steve Carlisle, LaToya Reynolds, and Shauna Mayo

True Story: The HyFlex Experience Across Disciplines

Kenyada McLeod, Pradnya Patet, Crystal Miller, Steve Carlisle, LaToya Reynolds, Shauna Mayo

ABSTRACT
Brightpoint's HyFlex Pilot Program was a year-long project funded by the Online Virginia Network (OVN) to support faculty in the design and delivery of an actual HyFlex course. The cohort consisted of faculty who teach in the biology, architecture, early childhood, and web design disciplines. Participants worked in collaboration with one another and the Center for Teaching and Learning. In the following essay, members of the 2021-22 pilot cohort will reflect on their experiences learning and implementing a HyFlex approach in their courses. Each author will share challenges and successes as well as conclusions with implications for practice by colleagues statewide.

Overview

The impacts of COVID-19 on higher education have been significant, far-reaching, and long-lasting. Colleges nationwide have scrambled to lessen the impacts of transitioning from face-to-face to virtual learning. As students began to return to face-to-face learning with the lifting of restrictions, educators at Brightpoint Community College looked for ways to incorporate virtual and face-to-face learning to allow students to attend class even when life situations occurred. After considering several options, the decision was made to pilot a few courses using the Hybrid Flexible, or HyFlex, model.

HyFlex, a term coined by Brian Beatty of San Francisco State University in 2005, describes a method of instructional delivery where students can attend class face-to-face or online, synchronously or asynchronously (Penrod, 2022). Compared to an exclusive face-to-face, synchronous online or asynchronous online course modality, the HyFlex model provides students with the flexibility of engaging with a course in the modality that works best for them at any given point in the semester. In an interview with Lillian Nave of the *Think UDL* podcast, Beatty shared that the HyFlex model manifested from a need to serve "students who were not able to come to class all [of] the time (Nave & Beatty)." HyFlex is an opportunity to meet the complex needs of the learners we serve while simultaneously maintaining college enrollments.

Many college students today are considered non-traditional students. Several factors help define a non-traditional student. The National Center for Education Statistics indicates seven factors, including being older than 24 years of age, delayed enrollment after high school, and working full-time to help define a non-traditional student (National Center for Education Statistics, n.d.). A person only needs to meet one of the seven criteria to be considered non-traditional (Coursera, 2023). The diverse circumstances and lifestyles and those we serve yields a unique opportunity to facilitate the attainment of a college credential in spite of caretaking responsibilities, transportation availability, ability and more.

Based on data from the academic year 2021-2022, Brightpoint served 11,491 students. There were 8,484 (73%) of the student population ages 24 and under and 3,007 (26.1%) students ages 25 and over who

can be considered non-traditional learners (Brightpoint Community College, 2023). This information along with the college's desire to encourage learners to return to campus post-pandemic, the college's Center for Teaching and Learning (CTL) sponsored a HyFlex cohort.

Brightpoint's HyFlex Pilot Program was a year-long project funded by the Online Virginia Network (OVN) to support faculty in the design and delivery of an actual HyFlex course. The cohort consisted of faculty who teach in the biology, architecture, early childhood, and web design disciplines. Participants worked in collaboration with one another and the Center for Teaching and Learning beginning in the summer of 2021. As a nod to the true nature of the cohort (HyFlex), participants had the option to attend monthly meetings in-person, synchronously online or asynchronously. Between June to December 2021, faculty met monthly for brainstorming and discussion, workshops and course presentations. For a more authentic introduction to HyFlex, cohort members completed Brian Beatty's HyFlex Learning workshop as a collective and used the knowledge obtained to enhance their developing HyFlex courses.

The cohort continued to meet monthly throughout the spring 2022 semester. During this time the group engaged in observations of each participating cohort member. This allowed faculty to offer feedback and even share ideas for continued improvement in their respective courses. The group also shared their experience teaching in the HyFlex modality during a college-wide presentation and roundtable discussion.

In the following sections, members of the 2021-22 pilot cohort will reflect on their experiences learning and implementing a HyFlex approach in their courses. Each author will share challenges and successes as well as conclusions with implications for practice by colleagues statewide.

Change Is a Paradigm Shift: HyFlex in an Early Childhood Education Observation and Assessment Course

In this section, Dr. Pradnya Patet reflects on her journey in using the HyFlex modality to teach and the emergent paradigm shift that followed.

In March 2020, the world got thrust into online learning and living in the midst of grief, fear, and uncertainty as the COVID-19 pandemic gripped everyone in its reach. As a member of the Higher Education community, I took new meaning from the cliched quote "Change is inevitable, growth is optional" as I grappled for tools and strategies to sustain my passion for teaching college students and preparing preservice teachers. I decided since growth was optional, I was going to leave it alone. That didn't last long because I realized that when change driven by something as strong as a pandemic arrives and plans to stay, growth is not optional. It too is inevitable. And so, my journey began.

The first step in my journey was to accept an invitation to join a cohort and learn how to design a "HyFlex" course and then pilot it the following semester. I found myself with five peers whose insights, expertise, and commitment were the initial scaffolds that launched my journey into what I can best describe as a first-time tourist looking through a brochure of sites to visit at a destination. I remember the excitement that was triggered through the ideas that others shared. I wanted to incorporate the interactive maps from one of the courses, the "additional challenge incentives" from another, and pictorial descriptions from yet another colleague's HyFlex design. Dr. Csikszentmihalyi's model of flow (1990) proposes that motivation stems out of two variables: skill and challenge levels. When a skill level matches the challenge level, people experience "flow" and stay engaged. The opportunity to get a glimpse into different disciplines and methods that my peers were using allowed me to pick the ideas that matched my skill level making the challenge to learn a new technique motivating rather than burdensome. It changed my thinking from "how am I going to learn something so unfamiliar?" to "What is a manageable, yet exciting challenge to keep me successful when exploring this new territory?"

This opportunity to collaborate with peers was one of the most helpful processes of this pilot program. In the course development phase, frequent workshop sessions were facilitated. During this time, each instructor presented a component of their course design. After the presentation, the rest of the group "talked about the presentation" while the presenter listened. The hardest part was not being able to join in to respond to a query or comment. This was the second step in my journey. Listening to peers talk about the course, and being forced to listen without speaking, opens your mind to how your materials are perceived irrespective of your intent. This kind of a peer setting allows for a collegial way to address the gap between intent and perceptions so often experienced in online teaching. For example, I designed a chart that indicated what students should do before class, after class, and what we would be doing during class. Someone commented that if they were attending asynchronously, they may start a day before everything is due. My intent was to go over that at the beginning of the semester and then regularly during class meetings & weekly announcements. But clearly I wasn't thinking about the asynchronous students who may not listen to the announcements or class recording. My mindset now changed from "Too bad if they didn't listen to the class recording or announcement" to "Where would an online asynchronous attendee look for information?" As a result, I have started sectioning the class recordings including each section in the corresponding tab of the lecture content page. In the assignment page, I make it a point to refer them to that section in the lecture content page. I can now see that they are using the information in their assignments and consequently getting better grades.

The idea that students could choose how they wanted to attend was a little overwhelming at first, to say the least. It was exciting too because adopting a flexible form of attendance meant that so many of my students who worked full time could continue to work and still complete classes to earn their degree! But,

how are you supposed to plan for a class when you don't know how many students will be in class? I believe in hands-on learning. If I have to teach preservice teachers that children learn by doing, then I have to teach them by allowing them to learn by doing. How does one plan hands-on learning for asynchronous students who wouldn't be in the classroom? How will they benefit from the experience of a live discussion versus a discussion board? These questions were quickly answered once the training of HyFlex instructional design began. Simple exercises that helped me pick an experience and then imagine, design, and intentionally create it in three different modalities led to one major "aha" moment. That was the third step that convinced me of how do-able a HyFlex course design is. My mindset had to change from "I have to design three different sets of instruction in each module to match the attendance modality" to "I have to plan content that is easily accessible to all three modalities." With that switch, it has become increasingly easy to design HyFlex courses. Students in my HyFlex courses discuss classroom experiences and how they modified an activity at home with available materials, and they are able to discuss similarities and differences in the outcomes of those learning experiences.

Learning to design HyFlex courses requires a paradigm shift. When I started out on my journey, I was asking the wrong questions. I learned at every step to reframe my question or mindset. A paradigm shift requires that we switch perspectives. A paradigm shift is not about finding new answers to old questions but asking new questions. Approaching HyFlex design is about moving away from asking "Will this work?" to "What do we need to make it work?" The beauty of working in a peer cohort, though, is that dialog about both questions moves us into a space where the questions become complementary. The first question helps generate barriers and if tackled alone, could result in what I did at the very beginning. I opted out of "growth" in the face of change. The second question, tackled alone, would be stressful. But a peer cohort translates the barriers into workable solutions.

Besides, why wouldn't we want to focus on finding ways to make it work when it makes access to education more equitable? Equity tops all challenges and hurdles. In my classes, 75% of the students attended asynchronously. These were all students who worked full time. It took a while for them to understand that they could choose how to attend each week. Many stuck to the modality they used on the first day. There was more of a shift from attending in Zoom or face-to-face to asynchronous attendance rather than the other way around. It did not impact their performance. They continued to be successful. However, there have been at least two students who started attending via Zoom after an initial meeting when they were worried about grades. We talked about their learning style and discussed which modality might work best for them. For these two students, it was possible to attend during class time. The next step in my journey is to dig deeper into learning styles and the best-suited modality. While most students have been successful, there are some who have had trouble with the asynchronous modality largely due to special

needs and learning style. Advising students to recognize their style and learning needs when choosing their modality would be a good step towards distinguishing between convenience and choice.

Change Is Empowering: HyFlex in Web Design

In this section, Professor Kenyada McLeod reflects on her experience with the HyFlex modality and the sense of empowerment it afforded learners.

Design for the Web II is the second half of a course sequence. Learners enrolled in this specific section would have successfully completed Design for the Web I asynchronously. During registration, prospective course members had the option of enrolling in a seated, synchronous online, or completely asynchronous section. It was only through email and general course correspondence that they were informed of the official HyFlex nature of the course.

The ten-person cohort of students enrolled in Design for Web II opted to attend classes as per their enrollment selection for most of the semester. However, some students chose to switch to different modes of attendance to suit their needs. For instance, a few in-person learners switched to the synchronous online mode, while one occasional asynchronous learner attended in-person towards the end of the semester due to the challenging nature of the subject matter. These choices were motivated by factors such as flexibility, convenience, and the need for more personalized instruction.

It was quite inspiring to watch learners advocate for themselves in the form of choosing the modality that worked best for them in any given moment. The need for immediate feedback, illness, life circumstances, and personal preferences all played a role in learners' individual modality choice for a given week. This option afforded learners the opportunity to take ownership of their learning experience and therefore increased both motivation and engagement. Draeger & Wilson (2020) write, "The power of choice—where students have input regarding what and how they learn, coupled with individualized opportunities to demonstrate their understanding—begins the empowering transfer of the control of learning to the rightful owner" (para. 2).

Due to supply chain challenges, we unfortunately were unable to experience a true HyFlex classroom. In a true HyFlex classroom, there are one or more cameras capturing instructor and/or classroom activity, microphone, projector, projection screen and an additional monitor to display online synchronous attendees. Leading a class session without the appropriate technology required a great deal of multitasking within the classroom as we were without the additional monitor to fully engage with our synchronous online attendees. We were also without a microphone to capture classroom audio, resulting in the need to repeat classroom questions and a more stationary teaching approach from the instructor's

perspective. Facilitating the course experience, demonstrating, paying attention to the non-verbal communication of in-person attendees, monitoring the chat and more were all required in a single class session. Overcoming existing technology malfunctions and outages was also quite challenging.

The HyFlex experience was both satisfying and challenging. Being given the time and incentive in the form of a monetary stipend to develop a HyFlex course was a key factor in the success of the pilot. The Center for Teaching and Learning at Brightpoint Community College served as an integral support system as they facilitated the processes of collaboration, communication, creativity, and critical thinking. As a cohort of teaching faculty, the inspiration yielded from observing our peers, giving and receiving feedback, and simply creating together was extremely valuable. Modeling the flexibility of the HyFlex modality, we as participants were also able to choose how we participated in our scheduled meetings. The cohort design allowed us to empathize with soon-to-be students and immediately experience the benefit that this flexible modality offered.

The Web Design AAS program at Brightpoint Community College is committed to equity and accessibility. As a G3 program, the financial barrier has already been eliminated for some. Through the adoption of the HyFlex modality, the scheduling barrier is being eliminated. Since participating in the initial cohort, three additional courses in the program have been converted to HyFlex. The level of engagement and intrinsic motivation observed from learners in this modality is inspiring and speaks to an ideal educational experience for human beings with varying life circumstances. If an education is what one desires, variables such as a class time offering or location should not be barriers. The HyFlex modality empowers learners by giving them the opportunity to take ownership of their learning experience.

Change is Progress: HyFlex in Architecture

In this section, Professor Crystal Miller reflects on her journey in using the HyFlex modality to reach a multi-generational audience.

Beginning this journey, I could not have articulately discussed HyFlex courses, or even defined them for that matter. Creating a HyFlex course with a team of peers led by The Center for Teaching and Learning at Brightpoint Community College has positively impacted my teaching style. The program was set up to support teaching staff in understanding HyFlex, assignment creation, rubric structure, and lecture content that can be adapted to all three modalities with minimal changes. Additionally, the group meetings provided opportunities for each of us to share concerns and work through issues. By the end of the project, I felt fully prepared and confident in my ability to teach the course. I am appreciative of this opportunity to learn and grow in my role as teaching faculty.

For the Architecture Department HyFlex experiment, a first-year course was chosen: ARC122: Advanced Drafting & Design II. This is the second half of a two-course sequence. Learners enrolled in this

section would have successfully completed ARC121: Advanced Drafting & Design I in a hybrid format, which is now also being conducted in the HyFlex format. During registration, prospective course members had the option of enrolling in a seated, synchronous online, or asynchronous section. However, since this was the trial run, it was not explained and all of my students were dumped into the same section. The options were then explained to the class during Week 1 of class. They appeared enthusiastic about the new modality and the flexibility it offered.

The small, six-person cohort opted to attend class primarily in-person, utilizing the Zoom and asynchronous options when unable to physically attend. Each student used each option at least once throughout the semester. I think it is important to note here that the class' present life circumstances, rather than learning preference, were the prevailing factors in modality choice from week-to-week. Architecture and Engineering students tend to be primarily visual learners and enjoy being in person for hands-on lab activities and feedback, perhaps more so than students in other areas of study. The real advantage of this for our experiment was that attendance was over 90% for all students. I liken this to Wasserman's (2023) definition of autonomy in the workplace: "it helps them reach their full potential". Zoom and in-person were the students' primary means of attending class. The options afforded learners the opportunity to take ownership of their learning experience and therefore increased both motivation and engagement.

From a classroom perspective, it was no different than teaching a hybrid course. Juggling Zoom students with in-person students is the same challenge in both modalities. I prefer to run Zoom, whether or not I have students on it, to record the lecture for any student that may have been absent. It also serves as an additional study tool. I would often forget about the asynchronous portion of the course, as I had no students using this as a primary modality. During the initial course set up, lesson plans were incorporated to cater to the asynchronous modality, but no data was collected on student preferences or changes in grading in this area.

Due to supply chain challenges, the HyFlex technology to outfit the classroom did not arrive during the trial semester. This required a great deal of multitasking within the classroom. Similar to a standard hybrid format, it included multi-tasking of great proportions: Facilitating the course experience, demonstrating, observing non-verbal communication of in-person attendees, as well as monitoring the Zoom chat and teaching to black boxes on a screen. Additionally, there were technology challenges: Overcoming existing technology malfunctions, outages, and ongoing technical issues with sound, cameras, projectors, etc. This was perhaps the most challenging piece as they were ongoing hurdles that had nothing to do with the students or content of the course.

Since participating in the initial cohort, the aforementioned Part I of this class has also been converted to HyFlex. Most other classes in the program have been switched to hybrid. Given the student culture for this program, the hybrid option has also been widely successful. The level of engagement and

intrinsic motivation observed from learners in the HyFlex and hybrid modalities has rendered only positive feedback. I believe at minimum hybrid classes are an ideal educational experience for human beings with varying life circumstances and HyFlex is next level. In a program offered solely in the evenings — for primarily non-traditional students — the option to attend virtually, and to have access to course materials whether physically present in class or not, is invaluable to today's learners. While there are still technical issues that make these modalities challenging, I am hopeful they will be resolved once the new equipment is in. I look forward to having all of the proper tech installed so that I can test drive the full experience with my next cohort!

In summary, I plan to continue offering these courses in HyFlex format. I believe there is still room to improve the modules and Zoom recordings to better engage student learning. I will continue to implement what I am learning and adapt to meet my students where they are. As technology changes it is imperative as educators that we stay ahead of the curve, being aware of the differences posed by generational gaps and remaining open to continuous learning. In these ways we will impact change.

Change is Evolving: HyFlex in Science and Anatomy

In this section, Dr. Steve Carlisle and Dr. LaToya Reynolds reflect on their journey in using the HyFlex modality while teaching science and anatomy courses.

The Human Anatomy and Physiology course sequence (BIO 141 and BIO 142) is an intense, two-semester detailed look at the structure and function of the human body. Intended for students going into healthcare, the courses often act as "gateways" to nursing and other programs. Students, especially those with little science and biology in their backgrounds, struggle with the novel and numerous concepts.

Teaching the Human Anatomy and Physiology (A&P) course sequence in the HyFlex modality sounded like the perfect delivery environment. The courses are stressful enough just considering the material, so removing the worry of mandatory attendance but maintaining the availability of face-to-face interaction and support was predicted to be instruction nirvana. Students would not feel the overwhelming pressure to attend every single on-campus session even when exhibiting signs of illness, instead relying on the virtual synchronous option to capture the feeling of direct engagement with the instructor and their peers. Allowing students the flexibility of choosing their modality for each session could perhaps remove one aspect of angst and worry.

Two experienced instructors tackled redesigning the two courses. Much of the process involved reorganizing and combining multiple courses as A&P has been offered in all three modalities (asynchronous virtual, synchronous virtual, and traditional) previously. Engaging activities and assignments that would cross over all three modalities were designed and reviewed. With anatomy and physiology being very content-heavy courses, many assignments are appropriate to use in any modality. Discussion and deeper thought are, however, vital components of the learning process. For synchronous delivery, discussion and an intense connection with the material is an easy and enjoyable process for both the student and instructor. Prompting discourse about your own body is simple. For the asynchronous delivery, live dialogue must be replaced with discussion boards or another mechanism that involves all the students in a meaningful manner. Careful attention must be paid towards designing relevant and consequential tools without overwhelming or overworking the students.

All sections of the pilot A&P courses began on very encouraging indicators. At the time, the HyFlex modality was not programmed into the registration system so students enrolled in the course as either a traditional, virtual synchronous, or virtual asynchronous student. This choice was assumed to indicate in which modality the student was most likely to consistently attend, and the split was relatively even for traditional and asynchronous virtual, and less for synchronous. Over three sections of A&P, 18 students opted for traditional delivery, 18 for asynchronous, and 10 for synchronous virtual. At first, students were confused with the HyFlex approach — likely due to inexperience with the modality and perfunctory or incomplete descriptions in the college catalog — but were enthusiastic about the concept once they understood their options.

After a short period of adjustment, no significant barriers were discovered to presenting A&P in all three modalities. It should be noted that a lack of technology in the classroom was a hindrance but not a true hurdle. Even without effective student microphones and a minimal monitoring capacity, there was just enough equipment available in the classrooms to allow productive recording and virtual projection. The students attending via the virtual synchronous modality indicated that they felt they were getting a similar

experience to the in-person group and readily participated in discussion and group activities. The virtual asynchronous students tended to complete their assignments later in the week — or exclusively over the weekends — but successfully used their discussion boards and other tools, maintaining equivalencies with their synchronous classmates.

The most significant and conspicuous observation was that the students did not remain in their initial modality. In a remarkably short time (less than four weeks), the traditional, in-person attendees rapidly migrated to the virtual synchronous modality. In addition, multiple students attending as virtual synchronous students opted for the asynchronous modality. While some switching was expected — and students were constantly reminded that there was no penalty to switching — the speed with which it occurred, and the totality of the conversion, was startling to both instructors. In one section, every student opted for the asynchronous modality before a third of the semester was complete (out of three sections, spring 2022). Four students consistently attended in another section, and a single student remained in the third. This phenomenon clearly was not something that was specific to one instructor.

While we are not certain what caused the mass switch to virtual modalities, we present a few possibilities. First, the HyFlex modality provided a controlled, gradual introduction to virtual synchronous and asynchronous delivery. Students that started the course attending the traditional face-to-face sessions perhaps felt that there was some advantage to attending in person. Most of these students eventually gained confidence in their abilities and personal motivation to settle on the asynchronous option. Once they realized that there was no inherent benefit accompanying physical attendance (and the three modalities were truly equivalent) they decided that the extra hassle of commuting was not necessary.

Another possibility is that some students wanted to physically attend but felt self-conscious with so few of their peers remaining. Every instructor has experienced a low-enrolled section with good, but seemingly shy, students. There sometimes appears to be an arbitrary enrollment threshold in a traditional course that supports open discussion and lowers the anxiety of answering (and asking) questions. Perhaps once a few students migrated to a less traditional modality, the rest simply followed along to avoid being left

alone in the classroom. How about that section with one in-person student? When asked, the student admitted that the only reason they still attended was a lack of sufficient bandwidth at home.

A third explanation for this is that the content-heavy nature of an A&P course naturally lends itself to the asynchronous modality. Students found that increasing their reliance on individual study and working by themselves worked, and "real time" group activities along with peer-to-peer engagement do not add significantly to their success. While this is possible, we imagine that many instructors will argue that activities and close, personal support significantly add to student success and should not be discounted. It could also be possible that better prepared students opt for the in-person and synchronous options, and less able students (or those with less available study time) veer towards the asynchronous option that risks less exposure to their peers. The students that originally choose in-person or synchronous attendance were always going to be successful regardless of the modality. This rather disturbing explanation is supported by some (very preliminary) data; the final grades of the group that chose the asynchronous virtual option were significantly lower than the other two groups. The average grade (on a four-point scale) for the asynchronous virtual group was 2.83 (+/- 1.29, n=18) while the average grades for in-person and synchronous virtual was almost identical (3.73 +/- 0.45, n=19 and 3.70 +/- 0.64, n=11, respectively). Clearly more data and exploration is necessary to come to any firm conclusion.

The expectation was that the students would choose their modality and remain in that modality (with the occasional shift), but this was not what happened. The extra prep work that went into the course redesign was not necessary, in practical terms the course could have been presented as a synchronous virtual course. Careful consideration should be given when deciding whether to offer a particular course in the HyFlex modality. Our final analysis is that it was not a good fit for a high-enrollment, content-intense course such as Anatomy and Physiology. As long as there are course sections available in each modality, it is not imperative that HyFlex options also be available. This is, of course, not an option for a smaller college with fewer students, emphasizing the point that the HyFlex decisions must be tailored to the local environment and driven by the instructors.

Conclusion

The Brightpoint Community College HyFlex cohort provided faculty with the opportunity to reevaluate their individual course designs, collaborate with one another, share ideas, reflect and engage in continuous improvement. The faculty experiences shared within this article offer insights on the value of sound course design, the importance of technology and considerations related to learner motivation and preferences.

To continue to be of good service, we must stay abreast of industry trends and maintain familiarity with the needs of those we serve. Being open to learning new things, taking a risk with course design and trusting fellow faculty collaborators can lead to equitable and engaging learning opportunities for our students.

References

Brightpoint Community College. (2023). Brightpoint Community College - Annual Enrollment Disaggregation for 5 Years. Chester, VA. https://www.brightpoint.edu/uploads/documents/annual_enrollment_breakdown.pdf

Csikszentmihalyi, M. (1990). *Flow: The Psychology of Optimal Experience*. New York: Harper and Row.

Draeger, C., & Wilson, D. (2020, April 28). How to give students more control over their learning (opinion). Education Week. Retrieved March 23, 2023, from https://www.edweek.org/teaching-learning/opinion-how-to-give-students-more-control-over-their-learning/2016/03

National Center for Education Statistics. (n.d.). Nontraditional undergraduates / definitions and Data. https://nces.ed.gov/pubs/web/97578e.asp

Nave, L., & Beatty, B. (n.d.). HyFlex Course Design Model with Brain Beatty. *Think UDL*. other. Retrieved March 21, 2024,.

Penrod, J. (2022, March 25). Staying relevant: The importance of incorporating HYFLEX learning into higher education strategy. EDUCAUSE. Retrieved March 6, 2023, from https://er.educause.edu/articles/2022/3/staying-relevant-the-importance-of-incorporating-hyflex-learning-into-higher-education-strategy

Wasserman, K. (2023). Comment on "Autonomy in the Workplace: Why it Matters and How to Foster it.", Lyra Blog: Mental Health at Work, 3 January 2023, https://www.lyrahealth.com/blog/autonomy-in-the-workplace/

What is a nontraditional student?. Coursera. (2023, November 29). https://www.coursera.org/articles/nontraditional-student