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Community College Student Issues Solved with HyFlex (Hybrid Flexible Attendance)

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Abstract

The HyFlex course model, an iteration of various course delivery methods developed over time, offers a versatile approach to enhance student learning experiences. By allowing students the option to attend classes in person, remotely, or view recorded lectures, HyFlex (Hybrid Flexible Attendance) courses cater to diverse learning preferences. This study examines the impact of HyFlex on student success and retention rates at Asheville-Buncombe Technical Community College, revealing an average retention rate of up to 85% for first-year English students and up to 95% for second-year students. Additionally, a university offering hybrid courses experienced high student satisfaction and minimal withdrawals, indicating the effectiveness of inclusive attendance options. Student services data identified common withdrawal issues, such as family obligations and work conflicts, which correlated with the benefits of HyFlex observed in qualitative student feedback. Despite its strengths, instructors may encounter challenges with managing communication channels, content coverage, and adapting teaching methodologies. While HyFlex and hybrid teaching offer numerous benefits, it is essential to consider potential weaknesses and conduct further research to inform course design and institutional practices.

Keywords: HyFlex, hybrid flexible attendance, hybrid teaching, inclusive attendance

Community College Student Issues Solved with HyFlex (Hybrid Flexible Attendance)

The HyFlex course offering is not new but rather a

transformation of course delivery methods developed over many years. HyFlex, hybrid courses with inclusive attendance, and flipped classrooms have been developed to enhance student learning experiences, achieving significant successes but also presenting some challenges. Flipped classrooms prioritize active learning with hands-on strategies in face-to-face settings, requiring students to review materials outside of class before attending in person. HyFlex and other hybrid courses with inclusive attendance offer students multiple ways to engage with course content, both in the classroom and remotely, during and after live class meetings. While students may appreciate the flexibility, instructors may face challenges managing multiple communication options in real-time for HyFlex and hybrid courses, concerns about content coverage in flipped courses, a preference for face-to-face instruction, and the need to reconsider their teaching approach and overall course design. While HyFlex, hybrid courses with inclusive attendance, and flipped courses offer strengths, they also have weaknesses.

Following the mandatory pandemic quarantines in 2020, teaching in the United States underwent a rapid transformation. Both students and instructors had to adapt to technology and explore new ways of experiencing courses effectively. This resulted in the emergence of hybrid course designs, such as HyFlex (Hybrid Flexible Attendance), which allow students to attend classes physically in person, remotely during live sessions, or by viewing recorded lectures afterward. This flexibility, known as inclusive attendance, accommodates students' varying life situations from week to week and has become a key factor in

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student success and retention. For example, at the Asheville-Buncombe Technical Community College (A-B Tech), HyFlex courses led to retention rates of up to 85% for first-year English students and 95% for second-year students, regardless of their attendance choice (Payton, 2023, p. 26; Table 2). Similarly, a university offering hybrid courses with inclusive attendance saw significant success, expanding from 18 courses in 2001-2002 to 131 courses in 2013-2014 due to high student satisfaction and low withdrawal rates (Alexander et al., 2014). The success of HyFlex and hybrid courses with inclusive attendance can be attributed in part to their ability to address students' top challenges. According to Terry Brasier, Vice President of Student Services at A-B Tech (personal communication, May 25, 2023), common reasons for student withdrawals in spring 2023 included family issues, work conflicts, course load issues, and medical concerns (Table 1). Qualitative student feedback over three semesters at A-B Tech further supports this correlation, with many students noting how HyFlex courses helped them overcome these challenges and complete their coursework successfully. By allowing students to choose their attendance format on a weekly basis, HyFlex and hybrid courses with inclusive attendance increase the likelihood of course completion.

HyFlex, Hybrid, and Flipped Classrooms

The HyFlex course offering represents the evolution of learning experiences in flipped, hybrid, and other seated classroom designs. HyFlex, along with other hybrid and flipped courses, aims to facilitate active learning both online and in person. As Bauer and Haynie (2017) explain in their work on fostering deeper disciplinary learning with the flipped classroom, the flipped model enables content coverage to occur outside of class, allowing in-person class time to focus on active learning strategies that promote mastery of disciplinary concepts (pp. 31-32). In a flipped classroom, students typically engage in preparatory reading outside of class, followed by hands-on learning activities during class sessions. Unlike traditional seated classes, no additional technology investments beyond the norm are required for a flipped classroom experience.

Hybrid courses, as described by Alexander et al. (2014), combine synchronous and asynchronous technologies to offer students the flexibility of both in-person and online learning (p. 20). This approach provides multiple avenues for students to engage with course material, including attending class ses-

sions remotely and accessing recorded lectures. In a university study, hybrid courses demonstrated significant success, with high student satisfaction and minimal dropout rates (Alexander et al., 2014, p. 17). However, challenges exist for HyFlex, hybrid, and flipped courses. For instance, while some accommodations, such as teaching assistants, may enhance the hybrid learning experience in university settings, they may not be feasible in community college environments. Additionally, the success of flipped classrooms relies on students completing assigned readings before class, which can pose a challenge if not achieved.

Furthermore, instructors may face resistance to implementing active learning strategies in traditional face-to-face courses, fearing a trade-off between content coverage and student engagement (Bauer & Haynie, 2017, p. 33). Concerns also arise regarding providing lecture notes to students, with some instructors viewing it as potentially detrimental to student attendance and performance (Landrum, 2010, p. 221). However, student preferences for receiving lecture materials differ from instructor perceptions, highlighting the need for a balance between traditional teaching methods and innovative approaches.

While HyFlex and other hybrid models offer opportunities for enhanced learning experiences, they require educators to adapt their teaching practices and course designs. Addressing the challenges associated with these formats is essential for maximizing their effectiveness in meeting the diverse needs of students in today's educational landscape.

Community College Student Withdrawals

While there are strengths and weaknesses associated with offering HyFlex, hybrid with inclusive attendance, or flipped courses, another prominent issue is how to assist students in overcoming certain challenges to improve overall retention rates. To assess withdrawal trends, students who withdraw from classes at Asheville-Buncombe Technical Community College (A-B Tech) are required to select one primary reason for withdrawal from each course every semester. Data from spring 2023, comprising 3,638 courses, was collected by the student services department. According to Terry Brasier, Vice President of Student Services at A-B Tech (personal communication, May 25, 2023), the top five reasons for withdrawal, which accounted for over 62% of cases, were as follows: family issues (17.26%), high school initiated (13.08%), heavy course load (12.12%), work conflicts (10.31%), and

medical issues (9.68%) (see Table 1).

To potentially mitigate family issues, course load concerns, work conflicts, and medical issues, implementing HyFlex or a hybrid with inclusive attendance is one strategy to address these challenges.

Methods

At Asheville-Buncombe Technical Community College, data and student feedback were collected over several semesters to evaluate the effectiveness of HyFlex courses, a hybrid with inclusive attendance. The same instructor taught nine English courses with the HyFlex format for two semesters in 2022 and one semester in 2023.

English Course Participants

Student feedback was gathered from nine community college English classes: one required course for first-year students and another commonly required for second-year students. Feedback was collected over three semesters: spring 2022 (3 courses), fall 2022 (4 courses), and spring 2023 (2 courses), involving a total of 179 students after the census. These courses spanned 14-16 weeks and were instructed by the same individual at Asheville-Buncombe Technical Community College. The instructor handled all technology aspects. Students provided feedback on the HyFlex with inclusive attendance during the final four weeks of the course offerings. Additionally, feedback questions were posed at the beginning of one semester prior to students experiencing the full HyFlex with inclusive attendance format.

Equipment

A remote webcam served as the primary tool throughout the semesters. The online web conferencing platform Zoom was utilized for synchronous course delivery. The cost of the remote webcam was moderate, approximately \$135. Specifically, a Logitech webcam model C925e, with an approximate retail cost of \$75, was employed and plugged into the front panel port of the classroom desktop. An additional Snowball microphone device, costing approximately \$60, was also connected to the front panel port to enhance audio quality for recordings. All students, whether seated, remote, or viewing recorded lectures, had access to all overheads presented by the instructor. While seated students could see those attending via Zoom on the overhead screen, Zoom students were unable to see the seated students.

Student Questions

Within the first four weeks of the semester, prior to students fully experiencing the HyFlex with inclusive attendance offerings, students were asked, “Based on what you’ve learned about HyFlex in our first class session, how do you anticipate this model will help accommodate your specific needs (e.g., work, childcare, academic workload, etc.) this term?” This survey was not anonymous. Additionally, in the last approximately four weeks of the semester, students completed an anonymous survey regarding the HyFlex with inclusive attendance processes and policies. One question focused on Zoom and recording offerings, and their contribution to student success: “a. Please share how attending Zoom Live during face-to-face class increased your success. b. Please share how watching the lecture recording after the face-to-face meeting increased your success. c. Did having these options matter to you?” Student feedback on how HyFlex with inclusive attendance addressed their issues was consistent with the most prevalent issues cited in the student services data.

Results

To overcome family issues, course load, work conflicts, and medical issues, HyFlex with inclusive attendance was one way to address these issues according to student qualitative feedback.

Addressed Family Issues

The course offering addressed the need of caring for children; a specific issue many students cited. This included needing to be flexible for their school-aged children, caring for children who get sick, caring for younger siblings, staying at home with children, and accommodating unexpected events.

First four-week impressions feedback

I anticipate that this model of classes will help to accommodate my needs by allowing me to continue working while my children are in school. ...I will not have to take time off of work [in] order to attend classes. ...I will not have to miss any lessons if one of my children gets sick or is out of school.

... Accommodate my needs, with having such a busy schedule and 3 younger brothers, I can see how if I ever missed any course material I can just look it up with just a couple of clicks.

This model might be very useful for me some days when I have to stay at home with my daughter.

The only way I see myself needing to use this resource is if any unexpected things come up with work or family.

I have a pretty heavy work schedule and am struggling to afford gas... On top of this, I often am in charge of watching my younger siblings, as my parents also work a lot...

I think it will accommodate my heavy work schedule, as well as my need to take care of my younger siblings while my parents are at work.

Addressed Course Load Issues

The course offering provided relief to create more balance with school and other life demands. This included taking classes from two community colleges, balancing school and other commitments, managing a heavy course load and homework, and feeling HyFlex with inclusive attendance was a key to passing the course—not retaking and adding to a future course load.

First four-week impressions feedback

...I am taking classes from two community colleges so having a class that I can attend from home will allow me to work on all my classes...

I hope to start attending most of the classes in person, however with work and other school commitments it can help make certain days more manageable to attend class from my apartment... will make class less stressful.

[T]his model will help accommodate my life when have a busy academic workload/busy work s[c]hedule.

On days when I want to be active and move around outside, but I also have a tight class and homework schedule, being able to stay home for my last class of the day gives me more time to walk outside, clean around the house, stretch, and study.

[I]t will help me because I'm taking...full-time classes so the option to do things online is a nice option.

Because I am a full[-]time student, I will attend every class face-to-face. If I fail to show up, I will either attend through zoom or catch up by watching the videos depending on my circumstances. I am grateful that you have made so many accommodations...

End of semester feedback

You helped with one on one, giving feedback, and made sure I was included. I was able to go back and watch what I needed help with and refresh my memory... I would've failed English.

Addressed Work Conflict Issues

The course offering accommodated many work conflict issues; the most commonly cited issue for students. This addressed saving time driving and when having transportation issues, going to work for those who were on call or working nights, companies not always accommodating class schedules, making sure students were able to fulfill work schedules, demanding schedules working 5-6 days per week, being able to go to work immediately after class or attending class from work, and fitting the course in when having two jobs.

First four-week impressions feedback

...It will really help[ed] me by being able to get the most hours out of my job that I can while also being able to be fully participate and not miss any lectures in your class.

Hyflex will help me out a whole lot this term, because I do live about 40 mins away from the school... makes it easier for me to also accommodate working into my schedule.

Hyflex...will be very beneficial to me on some days when I'm 30 [minutes] out of Asheville and still at work and won't be able to attend f2f class.

I usually work nights... so it will help a lot that I have an option of doing it online instead of coming to class every time.

I gave my managers my school schedule and they said they would be able to work me in around my class times, although if there are any mix-ups or confusion, I will be able to synchronously join the class and do it from work, or before!

[T]he HyFlex model will be helpful to me because I work weird and long hours some days and currently my car isn't working well and can't guarantee I will have a ride to in person classes until I buy a new car.

Since I work outside and don't always have time to get to class physically, this system will allow me to [be] present.

I am a manager... so I work mostly 5-6 days a week. Most of the time there's weeks where I have to manage by myself or during school hours.

My physical presence is required in lots of places outside of school, one of those places being work. I could choose to finish homework and watch recorded zoom online once I get off. Additionally, I don't have a great source or transportation right now.

I have a full-time job... This course format allows me to attend class virtually then go to work immediately after.

I think having the option of being asynchronous will be helpful if I ever get called into work, or if the family I nanny for need [s] me in case of an emergency.

I work full[-]time at one job and part[-]time at another right now to afford my living needs, on top of being a full[-] time college student. It is easy for me to become exhausted, and sometimes being able to sit in my own room to attend class is relieving.

End of semester feedback

I was able to join the class basically no matter what I had to do.... Some days I was called into work early so I didn't have time to come to school... helped me not fall behind.

... a little easier because I could do class from anywhere even while I was at work.

Addressed Medical Issues

The course offering also accommodated medical issues. This addressed having health issues when battling fatigue and being weak, chronic illness, flare-ups accompanied with exhaustion and pain, and managing less serious illnesses.

First four-week impressions feedback

...I have a lot of personal health issues & often find myself feeling extremely weak & tired. ...being able to zoom in on my bad days will be quite helpful.

...I have a chronic illness... I may want to either be on Zoom or perhaps not attend at all...

Sometimes it's more difficult for me to do work on certain days because of a flare-up in my symptoms, such as ex[h]austion or pain, so being able to get more work done when I'm not feeling as sick allows me to stay on track in this class.

End of semester feedback

I was able to know what was going on in class when I was sick or had to go home.

Overall, while addressing family issues, course load, work conflicts, and medical issues can be complex, HyFlex with inclusive attendance is one way to address these top cited issues according to student qualitative feedback.

Conclusion

After the 2020 pandemic quarantines, both students and instructors embraced technology, facilitat-

ing greater participation in various modes of course delivery. This included the option to be physically present in classrooms, attend remotely during class meetings, and access recorded lectures after class sessions. Known as HyFlex (Hybrid Flexible Attendance), this approach has effectively addressed some of the key issues associated with student retention. For instance, at Asheville-Buncombe Technical Community College, retention rates for first-year English students averaged up to 85%, and for second-year students, up to 95% (Payton, 2023, p. 26; Table 2). Similarly, a university hybrid course with inclusive attendance witnessed significant success, expanding from 18 HyFlex hybrid courses in the 2001-2002 academic year to 131 courses in the 2013-2014 academic year, accompanied by high student satisfaction and low withdrawal rates (Alexander et al., 2014). Interestingly, top withdrawal reasons identified at Asheville-Buncombe Technical Community College included family issues, work conflicts, course load issues, and medical concerns (Table 1), all of which correlated with solutions provided by HyFlex with inclusive attendance, as evidenced by qualitative student feedback.

This correlation was further validated by data from student services and qualitative feedback from nine English courses at Asheville-Buncombe Technical Community College. Students consistently reported that HyFlex with inclusive attendance effectively addressed their week-to-week challenges, contributing to a high likelihood of course completion. For instance, students cited HyFlex's assistance in managing family responsibilities, balancing heavy course loads, accommodating work schedules, and addressing medical issues. These findings underscored the alignment between student withdrawal issues and the solutions offered by the HyFlex with inclusive attendance format.

While changing course design and protocols offers strengths, it also presents challenges. While flipped courses offer simplicity, they lack full inclusive attendance options. In contrast, the key to student success in HyFlex or hybrid with inclusive attendance courses lies in flexibility, with options for seated, remote, and post-recording viewing attendance without penalty. While the cost is contained for flipped classrooms compared to seated ones, the investment in equipment and staff for hybrid models can be moderate to substantial. Additionally, instructors may face challenges in managing multiple communication options, ensuring content coverage in

flipped courses, and adjusting to new teaching protocols and course designs. Despite the strengths of HyFlex and hybrid courses, it's essential to consider their weaknesses and explore further research to optimize their effectiveness. This analysis did not delve into other best practices for enhancing student success with HyFlex or hybrid with inclusive attendance models, suggesting the need for additional research in this area.

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Author’s Note

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Table 1

Reasons for Student Course Withdrawals in Spring 2023

Student Reason for Withdrawals	# Withdrawals	% Withdrawals
Family Issue	628	17.26%
High School Initiated	476	13.08%
Course Load Too Heavy	441	12.12%
Work Conflict	375	10.31%
Medical Issue	352	9.68%
Other	208	5.72%
Lack of Motivation	200	5.50%
Changed Program or Goal	179	4.92%
Course Too Difficult	163	4.48%
Course Not What Expected	135	3.71%
Lack of Academic Support	68	1.87%
Housing Issue	64	1.76%
Financial	63	1.73%
Unknown	58	1.59%
Personal/Life issue	54	1.48%
Child Care	48	1.32%
Transferring	37	1.02%
Poor performance	34	0.93%
Transportation	14	0.38%
Deceased	12	0.33%

Table 1 contd.*Reasons for Student Course Withdrawals in spring 2023*

Student Reason for Withdrawals	# Withdrawals	% Withdrawals
Dissatisfied - Instructor	11	0.30%
Misadvised	11	0.30%
Don't need	4	0.11%
Administrative	3	0.08%
Total Responses	3638	100%

Note. Information is based on data collected by Asheville-Buncombe Technical Community College Student Services for withdrawals from spring 2023 courses. Students were asked to “Select One Primary Reason for Withdrawal” from one course, according to Terry Braiser, Vice President of student services (personal communication, May 25, 2023).

Table 2*Comparison 2022 and 2023 semesters by first and second year English courses: C or Better and Withdrawals*

Withdrawals and C or Better	Spring 2022 First Year English	Fall 2022 First Year English	Spring 2022 Second Year English	Spring 2023 Second Year English
Withdrawals	10% (4 of 40)	20% (15 of 75)	17% (4 of 23)	20% (8 of 41)
C or Better	75% (27 of 36)	85% (51 of 60)	95% (18 of 19)	94% (31 of 33)

Note. Information includes data collected in Payton, M. A. article (2023) and updated information for second year English students in similarly measured HyFlex studied courses at the Asheville-Buncombe Technical Community College.