

Costs and Benefits for Hybrid-Flexible Courses and Programs

Is the value worth the effort associated with Hybrid-Flexible course implementation?

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When is implementing a Hybrid-Flexible course worth the cost?

The guiding question for this chapter is one that you or your team will have to answer for yourselves and perhaps for your institution. The Hybrid-Flexible (HyFlex) course design supports student-directed learning in several important ways that most other course formats cannot due to their inflexible approach to student participation. A few of the most important benefits are explained below and in other chapters of this book. Yet these benefits come at a cost; costs borne by students, costs borne by instructors and designers, and costs borne by administrators at institutions choosing to implement HyFlex approaches. Some of the most common and significant costs are explained in this chapter. These and other costs are further explored in other chapters, especially the case reports in Unit III.

The Value of a Student-Directed Hybrid

Why should we consider implementing a student-directed approach to class participation at all? Does shifting to a “student-directed” perspective lead to different outcomes?

Unleash the power of hybrid

The value of hybrid learning formats, in general, has been shown consistently over the past decade or more of educational research in higher education. A recent meta-analysis of 45 studies comparing online learning to face to face learning environments found that, “on average, students in online learning conditions performed modestly better than those receiving face-to-face instruction. (Means, Toyama, Murphy, Bakia, & Jones, 2010) The difference between student outcomes for online and face-to-face classes—measured as the difference between treatment and control means, divided by the pooled standard deviation—was larger in those studies contrasting conditions that blended elements of online and face-to-face instruction with conditions taught entirely face-to-face.” (pg. ix) Two factors that contributed to the superiority of blended (hybrid) instruction over online and face to face instruction were additional learning time and additional instructional elements (resources and activities).

One challenge to the traditional approach to hybrid course design is that the student does not have the freedom to choose how to participate in assigned activities, especially regarding attendance

mode, whether online or in-class. Even though the instructor may have carefully designed activities for each mode that are well-suited for that particular mode, students with schedule conflicts, travel difficulties, or other legitimate reasons preventing their in-class participation are often left with no option but to miss those learning opportunities, typically with no alternative. Clearly this is less than ideal, and reduces the power of the hybrid learning environment. In a HyFlex class, the instructor is challenged to design effective learning experiences for students in both online and in-class modes throughout a course of study. This may remove some instructor design flexibility to require all students to participate fully online or in-class for a particular session, but well-designed instruction can almost always be created for both modes of instruction with additional effort; mostly time, but sometimes additional resources such as interactive or archiving technology solutions are needed. The additional resources provided for online students and the additional time available when the asynchronous online mode is available may directly improve learning for students who take advantage of either or both.

Mandate class attendance

Why put all this effort into supporting students' directing their own hybrid learning experience? Beyond the argument that students may be more able than instructors to make "best mode of participation" decisions for themselves, it may be even more important that HyFlex instruction obliterates common student excuses for non-participation associated with schedule conflicts, travel difficulties, and such. When meaningful and equivalent in-class participation alternatives are "built-in", continuously ready to support learning, and are clearly explained to all students, there is no excuse for "skipping class." In fact, instructors are supported in mandating class participation (attendance) even if an institution does not require attendance in classroom-based classes. A relatively recent (2010) meta-analysis of the impact of class attendance on student grades found a strong relationship between class attendance (in face to face instruction) and both student grades in class and overall GPA. (Crede, Roch & Kieszczynka, 2010) As long as the HyFlex course design implements effective online alternatives to in-class instructional activities, and requires student participation in either mode in each class session, the positive impact of student attendance should be present.

Is implementing a student-directed approach like HyFlex worth it to you? And to your institution? Only you can answer that question for your specific context, curriculum, students and faculty. As we begin exploring some of the main benefits and costs, you should probably ask this question from a different perspective: Under which conditions is implementing a student-directed approach like HyFlex worth the cost? Do we have those conditions at our institution, college, department, or in our courses?

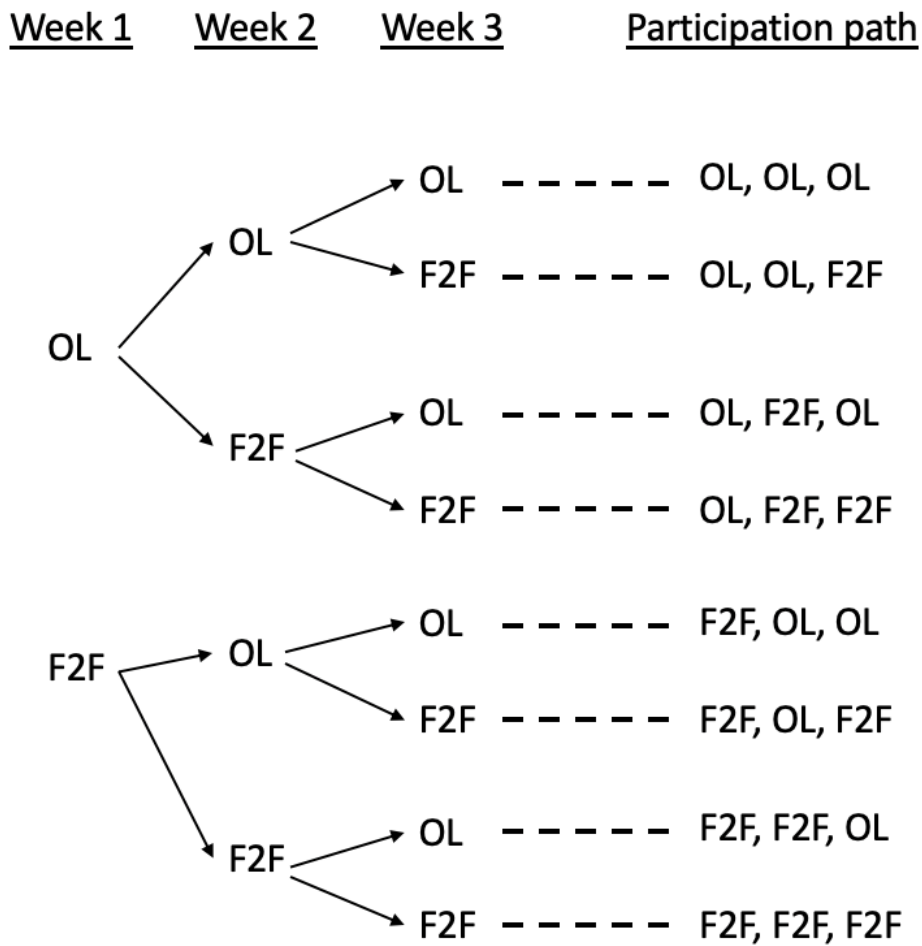
Maximize Learning Path Flexibility for Students

Another value added to consider is the particular power of providing participation options to support students' unique needs and preferences. It is impossible to predict the "best" participation pattern for any single student, even more so for a class of 49 students. With a HyFlex design, students have an amazing number of possible participation paths they can follow through a typical class.

For example, if we consider the first three weeks of a class with a classroom (F2F) and a single online option, we see the possible paths shown in Figure 1.2.1.

Figure 1.2.1

Possible Participation Paths for Three Weeks of Two Mode HyFlex



After three weeks, there are eight (2^3) different participation paths available. If we extend this to a 12 week class, we would see **4,096** possible paths (2^{12}) available to students. If an instructor added in a second online option, and it provided a substantially different experience for students than the other paths, we could repeat this calculation with three weekly options.

Providing a classroom option and two online options (asynchronous and synchronous) leads to **531,441** different possible participation paths (3^{12}) through the class.

If supporting students in choosing their own "best fit" participation path through a class is important, then the HyFlex approach may be an excellent choice.

Major Benefits

What are the major benefits of HyFlex? Below I've listed several common and significant benefits, organized by the stakeholder who is most closely associated with each.

Benefits to Students

- Increased access to courses:
 - when attending class in person is problematic, and
 - when desired classes are scheduled at the same time
- Schedule control: more control over day to day schedules associated with attending class
- More learning resources: multiple modes of participation often require more robust instructional materials, enabling richer instruction and providing additional opportunities for learning

It's no surprise that students consistently report they have difficulty managing their schedules to meet all the demands on their time: school, work, social, family, commuting. The primary benefit from HyFlex for students is usually reported as the flexible participation requirement supporting them making personal decisions about how best to participate and complete class requirements, many times regardless of their own preference. See Chapter 2.2. Learning in a Hybrid-Flexible Course for a more detailed exploration of the benefits to students. Several case reports in Unit III describe specific student benefits realized in local implementation.

Benefits to Faculty

- Able to serve more students with the same resources (time, instructional materials)
- Develop skills and experience in teaching online without giving up classroom instruction
- Provide a built-in alternative when classroom instruction isn't possible due to scheduling conflicts

Faculty typically report that their ability to better support students who need alternatives to one-size-fits-all instruction is a highly-valued benefit with HyFlex. In addition to the three listed above, some faculty also benefit from the opportunity to conduct their own pedagogical research on HyFlex and value opportunities for subsequent publication of their work within their own academic discipline. See Chapter 2.1. Teaching a Hybrid-Flexible Course for a more detailed exploration of the benefits to faculty. Several case reports in Unit III describe specific faculty benefits addressed during local implementation.

Benefits to Administration/Institution

- Increase overall course enrollment by offering additional schedule and location flexibility to students. When implemented at a large scale, HyFlex may lead to increased per unit course load and reduced time to graduation.
- Increase individual class section (a single instance of a course) enrollment beyond the seat capacity of a physical classroom. When implemented at a large scale, HyFlex may reduce space requirements for expanding enrollment and increase the availability of bottleneck courses.
- Support innovative approaches to instruction that should contribute to greater student success, when done well. This can lead to increased student learning, provide opportunities for faculty research and publication, and create institutional marketing opportunities to external stakeholders.

The bottom line value for most administrators is supporting increased student success by providing more access (and more convenient access) to needed instruction which results in greater rates of course completion and in some cases slightly higher grades. See Chapter 2.3. Supporting Hybrid-Flexible Courses and Programs for a more detailed exploration of the administrative benefits to

institutions. Several case reports in Unit III describe specific administrative benefits realized during local implementation.

Major Costs

What are the major costs to those implementing HyFlex? Below I've listed several common and significant costs associated with HyFlex implementations, organized by associated stakeholder group.

Costs to Students

- Requires personal management related to learning path: decision-making (which way to participate?) and when online is chosen, requires substantial time management skills.
- Personal and technical resources are required to participate in the online version of the course: (most commonly) hardware, network, ability to engage in online learning platforms, and the ability to learn through mediated experiences

The greatest cost, or challenge, to students is almost always the additional effort required to self-manage online participation requirements when in-class participation is not possible or desired. Many students still are not used to managing time effectively, especially when they may have low internal motivation to learn required content in required courses that aren't personally interesting to them. Distractions and non-educational options to spend time continue to proliferate in students' lives, further competing for their cognitive engagement; personal time management is a critical success factor for HyFlex students who choose online participation. See Chapter 2.2. Learning in a Hybrid-Flexible Course for a more detailed exploration of the costs to students. Several case reports in Unit III describe specific student costs (challenges, issues) addressed during local implementation.

Costs to Faculty

- Design and develop a course that supports multiple and simultaneous modes of student participation, essentially creating both fully face to face and online formats.
- Manage the technical complexity of multi-modal instruction, especially when synchronous participation is supported.
- Administrate the participation of students in varied formats: tracking attendance and participation, practice and assessment activities, and providing interaction and feedback.

Time, time, time... the clear cost to faculty (especially when getting started) with HyFlex is the additional time it takes most to create two learning complete paths through a course in order to fully support both online and in-class participation. Some are compensated for the additional time they spend on course development; many are not, finding ways to rearrange their other work to allow for HyFlex development. Since no one can add time to their day, this is an unavoidable cost. See Chapter 2.1. Teaching a Hybrid-Flexible Course for a more detailed exploration of the costs to faculty. Several case reports in Unit III describe specific faculty costs (challenges, issues) addressed during local implementation.

Costs to Administrators/institution

- Support additional faculty development and workload; formally or informally. This may require additional financial resources.
- Provide technology-equipped classrooms to support online students as well: lecture/discussion capture, synchronous learning platform.

- Enable students to realize the scheduling flexibility value associated with HyFlex; modifications to class scheduling system, student registration system, managing clear communications

Perhaps the most important cost to the administration of an institution embarking on a HyFlex journey is the leadership's willingness to address the range of costs associated with the effort. Known costs may be substantial and must be met by decision-makers with resource control, but there must also be the commitment to surface, acknowledge and solve issues that arise during initial HyFlex implementation (and quite possibly for years to come) as innovative programs grow and attract more adoption. Though every institution has their own unique approach to academic governance (often shared among stakeholders), the high-level commitment to "do what it takes" to support a HyFlex program is a cost that must be met in order to realize the anticipated benefits to students, faculty and institution broadly. See Chapter 2.3. Supporting Hybrid-Flexible Courses and Programs for a more detailed exploration of the administrative costs to institutions. Several case reports in Unit III describe specific administrative costs (challenges, issues) addressed during local implementation.

Complete a Cost-Benefit Analysis

Before any effort to implement HyFlex is begun, whether for a single course or for an entire program or curriculum, a preliminary cost-benefit analysis has to be completed, either informally or formally. The basic guidance in this chapter should support an initial informal analysis, but when you start designing a specific HyFlex course or program, you'll find value in following a more formal approach which includes data gathering and analysis and gathering a group of stakeholders for decision-making or establishing buy-in for the effort. This CBA will explain the expected costs and benefits and can include discussion of how the costs will be met and how the benefits will be evaluated. This should support more efficient HyFlex implementation and eventual comprehensive evaluation of the effort.

In Chapter 1.4 Designing a Hybrid-Flexible Course, the initial design stage of conducting this analysis is explained further to assist you in identifying, discussing and assessing opportunities that add new value to your institution (or department/program/course), or solve difficult problems. In addition to consider the positive nature of HyFlex, the design guidance helps your team assess the expected costs and develop a plan to meet these costs at the start of the project, or agree on an approach to meet those costs over time. Figure 1.2.1 is included here as a sample of the guidance available in Chapter 1.4.

Figure 1.2.1 Assess the Challenges and Opportunities Worksheet

1. Assess the Challenges (Costs) and Opportunities (Value)

Opportunities: Adding Value		Solving Problems	
List the opportunity-related goals:	Explain how flexible delivery design would allow you to meet this goal.	List the problem-solving goals:	Explain how flexible delivery design would help meet this goal.
Challenges: Additional Costs			
Faculty	Students	Technology/Resources	Administrative
List the potential or actual costs to the faculty:	List the potential or actual costs to the students:	List the potential or actual costs associated with resources:	List the potential or actual administrative challenges:
Comments:			

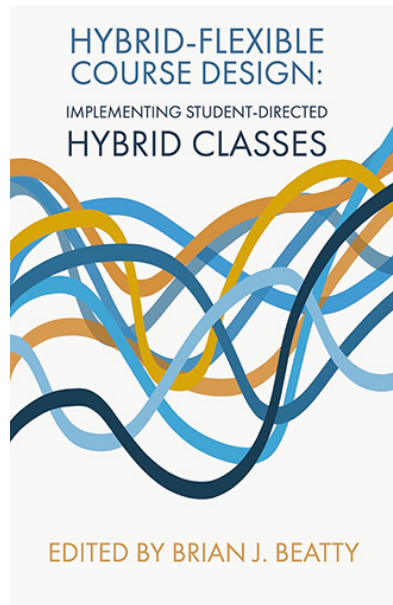
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References

Crede, M., Roch, S. G., and Kieszczynka, U. M. (2010). Class Attendance in College: A meta-Analytic Review of the Relationship of Class Attendance with grades and Student Characteristics. *Review of Educational Research* 80(2), pp. 272-295.

Means, B., Toyama, Y., Murphy, R., Bakia, M., and Jones, K. (2010). *Evaluation of Evidence-based Practices in Online Learning: A Meta-analysis and Review of Online-learning Studies*. Washington, D.C.: U.S. Department of Education.



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