Technology Solutions for Adult Basic Skills Challenges

BlendFlex and HyFlex Models to Increase Student Engagement and Retention

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The focus of each Technology Solutions for Adult Basic Skills Challenges column begins with a common challenge facing adult basic skills practitioners. Solutions offered for these challenges, at least in part through the use of technology, include hardware, such as desktop and laptop computers, smartphones, electronic tablets, VR goggles, robots, and electronic whiteboards; software applications such as websites, course management systems, learning management systems, and databases; and apps for mobile devices. Each article begins with a description of a challenge and examines one or more solutions that use technology.

Description of the Challenge:

In this issue, we offer a technology solution to two large and related challenges: student engagement and student persistence, which, from a program or school perspective, is often described as student retention in or completion of a program. The technology solution we are exploring for these two problems is Flex learning models, specifically HyFlex and BlendFlex.

What Are HyFlex and BlendFlex?

HyFlex and BlendFlex are new models of teaching and learning made possible by digital technology.

They offer adult learners more control to make courses fit the demands of their lives, especially when they are complicated by pandemics or natural disasters, when in-person learning may be difficult or impossible, and when shifting from in-person to remote learning must be easy and seamless.

Purdue Shares Look Inside HyFlex Classroom — Campus Technology

To put Flex learning in perspective, here is a short summary of decades of change in instruction delivery in the United States and in many other countries. Before the digital revolution, there were only group or one-on-one, in-person learning, in a physical teaching/learning space, usually a classroom or a tutoring space; this is now often referred to as traditional in-person classroom teaching or tutoring. There was also paper-

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based distance education, usually referred to as correspondence courses. In the twentieth century, courses were also delivered at a distance through radio and television technology. With digital technology -- including computers, portable digital devices such as smartphones, and the internet and its worldwide web -- online distance education, often now referred to as remote teaching and learning, has grown enormously; it includes massive open online courses, known as MOOCs, but also many other online courses offered by secondary schools, post-secondary institutions and adult basic skills schools and programs. Remote teaching and learning are now provided synchronously (in scheduled "real" time) and/or asynchronously (available any time). We have seen hybrid modes, a combination of remote/online and in-person teaching and learning and, more recently, some programs or schools have chosen an integrated kind of hybrid mode known as blended learning, where what one learns online and in-person addresses the same curriculum content standards, but with both in-person and online teaching and learning approaches.

Now we have Flex learning, an especially convenient and adjustable kind of hybrid or blended learning. There are two kinds of Flex learning, HyFlex and BlendFlex. "Hy" refers to "hybrid", and "Blend" refers to "blended" learning.

In a HyFlex course, students can attend face-to-face or online synchronously or asynchrously. Brian Beatty, Associate Professor of Instructional Technologies in the Department of Equity, Leadership Studies and Instructional Technologies at San Francisco State University, when he was Associate Vice President for Academic Affairs Operations, called the new mode he was developing in the mid-2000's "hyflex." HyFlex has also been implemented at Purdue, the University of St. Thomas in Minnesota, and in many other colleges and universities.

From Beatty's (2019) perspective, here are four fundamental values or principles of HyFlex (see p. 52):

1. ***Learner Choice:*** *Provide meaningful alternative participation modes and enable students to choose between participation modes daily, weekly, or topically.*

2. ***Equivalency:*** *Provide learning activities in all participation modes which lead to equivalent learning outcomes.*

3. ***Reusability:*** *Utilize artifacts from learning activities in each participation mode as "learning objects' for all students.*

4. ***Accessibility:*** *Equip students with technology skills and equitable access to all participation modes.*

How Does BlendFlex Differ from HyFlex?

Although Beatty has described BlendFlex as very much the same as HyFlex (2019) in some BlendFlex implementations there is less flexibility. It is common in BlendFlex, for example, for instructors to pre-assign students' face-to-face attendance on certain days. On other days they may choose how to participate, for example whether to attend remotely, watch a recorded session or complete an online module.

Where Is BlendFlex Used?

BlendFlex is now increasingly used in both community colleges and universities, for examples: BlendFlex has been pioneered at the 2-year Central Georgia Technical College, University of Central Florida, Nova Southeastern University Florida**,** Florida Gulf Coast University**,** and at Seward County Community College, in

Kansas. Several community colleges in Illinois have been planning BlendFlex models, and some of these include adult basic skills classes in their plans, for example, Lewis and Clark Community College and the College of DuPage. Pima Community College in Arizona is also including adult basic skills classes in its Flex plans.

In a January 2018 Inside Higher Ed article, "Introducing a New(-ish) Learning Mode: Blendflex/Hyflex," Brian Beatty is cited as estimating that approximately 20 institutions had experimented with variations on BlendFlex or HyFlex. Now there are many more higher education institutions doing this, but how many is unclear.

How are colleges and universities implementing HyFlex or BlendFlex?

Most colleges and universities start with a limited number of HyFlex or BlendFlex implementation courses, perhaps with one or two pilots first, to work out the challenges. A curriculum that may have been used only for in-person classes, even if proven successful, may need to be adjusted so that it is equally successful in online synchronous and asynchronous approaches. Training for instructors in addressing the complexities of delivering a curriculum with three approaches is essential, especially when the goal is to help students achieve the same kinds of successful results regardless of which approach(es) they choose.

In both the BlendFlex and HyFlex mode there may be new technology that needs to be mastered, a mobile robot video camera for example that follows the instructor around an in-person classroom so that students participating remotely can see the instructor and perhaps the students. One example of this technology is the **SWIVL**. In many implementations, first steps include

involving instructors who want to be early adopters, who may also participate in the design of the Flex modes and curriculum. The institution, agency, school, or program may decide not to have all classes delivered in a BlendFlex model. For example, occupational training courses, or other classes in which hands-on practice, observation and assessment are essential, may not lend themselves easily to a Flex model.

Some benefits of BlendFlex and HyFlex to students, teachers and programs

- Students choose the course approach(es). For example, they can learn synchronously but remotely from home or work if they have reliable broadband Internet access, a computer or other suitable Internet-accessible digital device, and videoconference software. They can learn asynchronously if they have access to an online learning management system. Of course, many students will need not only Internet access and digital devices but also digital competence, confidence – and in some cases, courage — to use these kinds of remote instruction well.

- Videorecorded lectures are available to students in an online archive for all class sessions.

- Students who want to be very engaged with teachers, as well as those who don't, have a choice; they can attend a synchronous in-person or remote class with a teacher, or they can complete their assignments asynchronously largely on their own. In a HyFlex mode, they can easily switch back and forth if they wish.

Although teaching in an integrated BlendFlex or HyFlex mode may require more work for instructors, some have found it easier using one of these modes than teaching the same course using separate in-person, online synchronous, and

online asynchronous approaches. A BlendFlex teacher at the University of St. Thomas in Minnesota, for example, wrote, "With blendflex, I have one section with one Blackboard shell, and all my assignments, emails, discussions and course materials are the same for the BlendFlex class and are all located in this one class section, and [it] is so much easier to manage and maintain. Where I had 35 students in three classes, I now have 105 in one class." (Lieberman, 2018, para. 15)

- Flex modes can offer opportunities for student engagement by allowing them to choose when they need in-person instruction and when online synchronous, or asynchronous, instruction.

- Using Flex modes also means that students can stay enrolled in the class when they cannot attend in-person for some period of time but can engage remotely with content that addresses the same content standards until they can return to the class in-person. That can increase student persistence/program retention and course completion.

Some Challenges of BlendFlex and HyFlex Models

- Students generally are not familiar with a Flex model when they begin instruction; it can be jarring at first. To help address this, Central Georgia Technical college has built BlendFlex into its student orientation and trained student advisers to explain how to use it. This includes how the expanded choices and flexibility enable them to meet their needs, but also that students must still be accountable for completing assignments or they may be removed from their course.

- There may be significant costs for equipment, and training teachers how to use it.

- A year-long planning effort may be needed to prepare the Flex curriculum so it can be

seamlessly used by the teachers and students in-person, remote synchronously and remote asynchronously.

Reflections

Flex models appear to be expanding in higher education; in several community colleges in Illinois, as mentioned earlier, BlendFlex models are being adopted for some classes, and some of these include adult basic skills education programs. You may wonder, have flex models been proven to work? There is not yet much research. Are they best practice? Some colleges believe they are for some courses, but this is largely untried in adult basic skills programs. How difficult or expensive are Flex models? That depends. Some community colleges purchase high-end equipment to assure top notch video streaming from the classroom, including robot video cameras that can follow the instructor around the classroom, and speakers and microphones in the classrooms that allow students to be easily heard by those at home. This could be complicated and expensive to do well; however, flex models may work well enough without elaborate and expensive equipment. In some cases, a simple version might work well enough, for example, one that equips the classroom teacher with a battery-operated lapel microphone connected to a laptop computer connected by a hotspot to the Internet.

Flex models could be a boon for the adult basic skills field. For many years, our field has had a challenge with student retention and completion of classes or courses (Lieberman, 2018). In the research literature, three kinds of barriers to retention are often described:

- Situational, for example when students lack childcare or transportation to get to an in-person class,

- Motivational, for example when students lack confidence, "grit," or a compelling personal reason or goal for the class or course, and

- Institutional where, because of the institution or organization policy on class attendance, the days and times classes are offered, or a requirement for in-person attendance at a class, well-intentioned students find they can no longer attend class, and must stop out for a time, or drop out altogether.

The growth in education, from solely in-person, to hybrid, to blended, and now to Flex models, offers significant ways to reduce these institutional barriers to retention, and to better fit course delivery to adult learners' lives, and especially the emergencies that adult learners often face. With Flex modes, especially HyFlex, which provides students with the greatest opportunities to make choices that fit their course experience to their life and learning needs, we have the potential to greatly increase class or course retention and completion. If so, this would benefit students, education agencies and institutions and, once teachers get the hang of delivering Flex instruction, possibly for them as well.

However, this is all very new; we do not yet know if, in fact, retention will be improved, or if Flex instruction actually delivers on its other proclaimed benefits. We need evaluation and research over time to know.

Further Reading

Hybrid-Flexible Course Design (Updated 07/07/20), free and online at **https://edtechbooks.org/pdfs/mobile/hyflex/_hyflex.pdf**

7 THINGS YOU SHOULD KNOW ABOUT … ™ The HyFlex Course Model **https://library.educause.edu/-/media/files/library/2020/7/eli7173.pdf**

What Students Need to Know About BlendFlex (University of Central Florida) **https://digitallearning.ucf.edu/newsroom/keeplearning/blendflex-model/**

What Faculty Need to Know About BlendFlex (University of Central Florida) **https://digitallearning.ucf.edu/newsroom/keepteaching/blendflex-model/**

Preparing for HyFlex Instruction **https://go.playposit.com/blog/preparing-for-hyflex-instruction**.

External Evaluation Positive results achieved in a BlendFlex math course **https://members.aect.org/pdf/Proceedings/proceedings19/2019/19_32.pdf**

References

Beatty, B. J. (Ed.). (2019). Hybrid-Flexible course design: Implementing student-directed hybrid classes. EdTechBooks.org. **https://edtechbooks.org/pdfs/ mobile/hyflex/_hyflex.pdf**

Lieberman, M. (2018, January 24). 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**