

7.7 Evolving Technology to Best Meet Learner Needs

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Description of program and learners

Hubbs Center is a program of the St. Paul Public Schools' Community Education Department and provides a wide variety of services in two primary locations in St. Paul, Minnesota. As of June 2022, three Hubbs Center teachers offered HyFlex classes for English language and adult education skills. One teacher started piloting HyFlex in Spring 2021, while the other two started in Fall 2021.

Recruitment and Orientation

Learner recruitment for the HyFlex classes continued to evolve. Learners were scheduled into the HyFlex classes when they indicated the need for the flexibility offered by HyFlex or that they preferred the format.

Although orientation for HyFlex classes was being refined, teachers working on the pilot noted it would include technology skills, expectations for participation, in-person and online classroom norms in a HyFlex class, and accessing educational technology, such as [Google Classroom](#).

HyFlex in Action: Course and Instruction

Class length and frequency varied by class audience. Some classes met once a week for four hours, while others met four times a week for several hours. Although learners designated their preferred mode of instruction during orientation, they could still choose daily which format to use.

Planning

Hubbs Center offered two primary modes of HyFlex participation: in-person and synchronous online. Teachers also used Google Classroom to post class materials that could be accessed by learners who missed the synchronous class, in addition to posting the online curriculum that learners could use for homework and optional extra practice.

Delivering Instruction

One teacher specifically mentioned how she strived to use classroom routines to allow students to know what type of learning activity was coming next and to build technology skills. In at least one of the HyFlex classes, all in-person students used a laptop or brought a device to join online activities. One teacher had her in-person learners also join [Google Meet](#) so they could do small-group activities with online learners. In-person learners would go to different parts of the classroom or sometimes even an empty classroom space when working in breakout rooms with the online learners. Another teacher had her in-person learners use headphones with microphones when working in breakout rooms with online learners.

One teacher used a flipped classroom, where learners were assigned asynchronous work related to the class topic prior to joining class. This was well-received and successfully prepared learners to participate in the synchronous class.

Technologies

The teacher who initiated the HyFlex pilot took the lead on testing out equipment. Initially, the HyFlex program used a large-screen television, camera, projector, and two laptops. But audio quality was an issue, so the program tested an [OWL camera](#). Because some sites didn't have the internet bandwidth to support high-quality audio and video, the program then switched to a [SWIVL](#) with an iPad, which was a better match.

Learners joined the HyFlex class via Google Meet. All learners had access to Google Classroom. Teachers used [Google Docs](#), [Google Forms](#), [Google Slides](#), and [Jamboard](#). They used [Pear Deck](#) to provide interaction and a publisher curriculum with online components. In addition, they used various ed tech tools and curricula, such as [YouTube](#), [Newsela](#), and [Northstar](#).

Technical Support and Training for Teachers and Learners

The HyFlex team researched and piloted several types of technology for their HyFlex classes. This had benefits, since teachers knew exactly what the important features were and could use that to evaluate options, but it also resulted in a lot of trial and error since they were building their knowledge of the technology throughout the pilot. One teacher strongly suggested utilizing vendor training when available to help learn the hardware more quickly and easily than through self-exploration, noting that technology training and support are critical for success, for both teachers and learners.

Tech Support

Teachers provided tech support to the learners. They did this by creating screencasts that were posted in the Google Classroom, putting technology screenshots/guides in the Google Slides presentation each class, and requesting that students ask any troubleshooting questions as they arrived in class and began to work on the warm-up activity. Online learners were also able to come into the classroom for additional help.

Teacher Training

The three Hubbs Center HyFlex teachers met on a regular basis to share ideas, reflect on current technology and teaching, and discuss future action steps. Their goal was to maximize the best teaching practices of both in-person and online learning. To do that, they participated in PD to learn ed technology, such as Pear Deck. The teachers also found it valuable to participate in the statewide HyFlex Community of Practice that was started by a Hubbs Center supervisor. Learning what other programs were doing helped to inform their pilot. One of the teachers planned to create and share HyFlex videos to help other HyFlex teachers with troubleshooting and to promote student independence.

Implementation: Lessons Learned

Data Collected for Program Improvement

All three teachers collected learner feedback, anecdotal data, and reflections on their experiences, and then shared them during Professional Learning Community meetings. This helped to inform needed HyFlex program changes as well as identified strategies and technology that were working well. They found the PLC meetings invaluable for support, ideas, and planning.

Benefits

The HyFlex team found that students deeply valued the ability and flexibility to stay at home when needed and still participate in class. They found that some learners were able to participate in classes when they previously hadn't been able to because of challenges with in-person-only instruction.

Challenges

The biggest challenge the team encountered was finding the right equipment that worked best for the program's classroom setup and internet connection speed. In addition, onboarding new students every week or couple of weeks

was demanding. Providing troubleshooting while teaching could slow down instruction, so they found that first orienting learners and ensuring they had the digital skills was important for student success in a HyFlex program.



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