



Reaching Beyond Limits to Reach Disengaged Students

How a BOCES and its component districts joined forces to beat resource constraints and build a customized early college high school experience for students

Hamilton Fulton Montgomery Pathways in Technology Early College High School

Johnston, New York

Introduction

A challenging fact of education is that there will always be students who thrive and engage more in an academic setting different from the ones available to them. For those of us working in public education, this comes up often for students who would benefit greatly from smaller, more intimate settings difficult to create on existing campuses.

Recognizing this reality, while also recognizing some realistic limitations of working only within their own districts, a group of neighboring districts in upstate New York decided to join forces. Together, they could tap into the power of pooled resources and break beyond the traditional constraints and structures of their standard learning environments to serve segments of students who could most benefit.

The Challenge

Leadership in the Hamilton, Fulton, and Montgomery Boards of Cooperative Educational Services (HFM BOCES) and its component school districts in upstate New York needed a new solution to an old problem. In each of their districts, there were segments of students not engaging in their educations despite concerted efforts to that end. These students often fit the profile of those who need a tight connection between learning and careers to remain motivated. They also fit the profile of those who thrive in small settings highly customizable to their learning goals, styles, and needs. And they also fit the profile of students educators in all three districts view as capable, competent kids with high potential—just best realized in an environment different from the ones available in their districts.

When each district considered how they could create a more intimate and career-focused setting for students, they bumped up against resource constraint after resource constraint: funding constraints, teacher constraints, certification constraints, building constraints. A breakthrough came when they realized that if they partnered with fellow districts and organizations with the strengths and capacities they each lacked, new solutions would be possible.

In 2014, HFM BOCES joined forces with their component school districts, Fulton-Montgomery Community College, the Fulton-Montgomery Regional Chamber of Commerce, and business partners to launch the first upstate PTECH: Hamilton Fulton Montgomery Pathways in Technology Early College High School (HFM

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PTECH). The state encouraged and facilitated the model with a start-up grant clarifying several policies and removing some of the fiscal and regulation barriers to allow blending of college and high school instruction.

After a year of planning, the school opened for the 2014-15 year with a cohort of 50 students at their own location in a little used elementary school. They have gradually scaled up to a total school population of approximately 200 students (from 15 school districts) in four high school grade levels and fifth and sixth years (full-time on the college campus). Approximately 20% of the student population has disabilities, and 25% represent minority populations.

Students who apply to the school must demonstrate a desire and seriousness to earn both a high school and college associate's degree within four to six years. Admitted students choose early on from one of four career "pathways": Business Management; Advanced Manufacturing; Information Technology; and Health Sciences. Pathways feed into the always-growing options of associate's degrees: Business Accounting; Business Administration; Business Technology and Applications; Electrical Technology; Computer Information Systems; Computer Networking; Computer Technology; Medical Administrative Studies; Health Studies; and Radiologic Technology.

In their junior year, students begin spending part of their time on the Fulton-Montgomery Community College campus. By their senior year, and up to two more years as required by a chosen degree, students take classes full time at the campus.

All learning modules are directly career relevant. The Chamber of Commerce and business partners, lending resources and time, are highly involved with the 10 full-time faculty in crafting instruction so that it exemplifies real-world work. Together and through authentic learning experiences, they prepare all students to meet high school graduation requirements (with diplomas issued from their home high school) and for the challenges and maturity needed to excel in postsecondary education.

The Innovation

HFM PTECH follows the model of early college high school preparing students for associate's degrees with a higher education partner. Given that the team started the school from scratch, they had freedom in building a learning delivery model to meet the exact student needs that were going largely unmet in their districts. To

their great credit, they were wise and deliberate with this freedom, taking care not to squander it but instead optimize it for students.

The planning team started with an essential question: How can we better and more specifically serve the needs and learning styles of all our students? Since the usual ways of meeting student needs were failing a certain segment—the very segment they sought to serve in their school—they knew they could not do business as usual. They knew that the form and structure of the traditional American high school could not be their baseline for innovation. To unbox themselves from this traditional form and structure, they shrewdly used design thinking to answer that essential question.

The heart of design thinking is avoiding defaulting to the usual ways of thinking about problems and finding solutions. It also takes a human-centered approach, meaning meeting specific human needs is the highest consideration at every stage of the planning process. They were trying to build a new system, one capable of moving the targeted group of students through a four- to six-year, highly engaging set of experiences and towards an associate's degree. So, the planning team began their solution-finding process by asking new questions and defining new problems—to ensure that they would ultimately arrive at new solutions.

As a result of the design thinking methodology, four attitudes emerged that drove the development of the school and its approach to academics and learning. These attitudes can be adopted in any school setting to better meet the needs of students who thrive in an environment different from the one they are in.

If There's a Resource Constraint → Expand the Resource Pool

HFM PTECH was conceived of a resource constraint. It was made possible by looking beyond the limits of the component districts. One of the districts was even able to make use of an elementary school building that sat almost empty to serve as HFM PTECH's home.

Since a core point of HFM PTECH is to make all learning directly applicable to students' careers, the team wanted to offer as many college credit-bearing courses as possible and as early as possible in a student's high school career. Access to such courses would be straightforward for juniors and seniors who spent time on the college campus. But the team wanted to find a way to make such courses available to freshmen and sophomores, as well, and applicable to their diploma requirements. As a creative solution, they asked professors and adjunct professors from the community college to rotate teaching classes on the HFM PTECH campus.

HFM PTECH students are proud members of their school. However, some expressed concern about leaving behind the broader extracurricular offerings of their home school. For obvious reasons, HFM PTECH wasn't set up to offer as many after-school programs, particularly sports, as their traditional high school counterparts. They arranged with high school leadership to keep their extracurricular programs open to HFM PTECH students. Several students still partake in their home high school extracurriculars.

If Content is Too Abstract and Academic → Reframe and Deliver With as Much Career-Relevance as Possible

HFM PTECH was, arguably, founded precisely to part with the traditional lecture-homework-test model. To connect most meaningfully with its students, learning had to be highly engaging and career relevant. It had to be hands-on and experiential. Its purpose had to be explicit.

The team decided that all classes would follow the Project Based Learning (PBL) model, with all projects mirroring real-world work world. To that end, members of the business community are involved at every stage of PBL planning and execution: They supply for teachers real-world project ideas and problems for students to solve. They coach students through their work or serve as mentors. And they comprise the authentic audience to students as they present projects. As in the work world, PBL lends itself to student agency and empowerment, as students drive decisions around how to divide work tasks and complete and present their projects.

Teachers team up to plan multidisciplinary coursework and learn any necessary background knowledge to share in delivering multidisciplinary PBL units—which serves the dual purpose of modeling collaboration to their students. In turn, students routinely work in group teams to solve problems and complete projects.

HFM PTECH's campus environment was designed to facilitate extensive, hands-on, group project work. There are no classrooms, but innovation spaces, where you will never find desks or rows and never hear a bell. The school lacks a library, but has a Learning Commons to offer students a space to work on projects, tinker with technologies, and socialize. The school also adheres to a one-to-one laptop policy, as this makes the collaboration necessary for robust PBL so much easier.

If Something is Too Structured and Traditional → Remodel and Un-structure as Needed

HFM PTECH's team always keeps an eye of student engagement and ways to deepen it. Since the average HFM PTECH student relies on high career-ready relevance to stay motivated, the team felt following the traditional high school structure of frontloading required classes and opening up electives only to juniors and seniors posed a disengagement risk. Electives were a low hanging fruit way to engage their students by allowing them ownership over learning and agency in their coursework. HFM PTECH restructured the traditional high school curriculum trajectory to let entering freshman take electives alongside standards-driven classes.

While the team is unafraid of un-structuring the overly-structured, they take care only to do so up to the point where too little structure could become counterproductive to their students' needs. Juniors and seniors who take classes on the community college campus benefit from the responsibility of advanced coursework and an increased sense of freedom. Yet, they are reassured by the fact that at any given time, there is always an HFM PTECH teacher on the college campus to support them as needed.

The team wanted to be sure each student felt they had a voice and multiple opportunities to use it. Each morning begins with student-led meetings attended by everyone—students and staff—on the HFM PTECH campus. Students use this time to discuss issues and ideas. Ideas run freely, as extracurricular activities must be conceived, planned, and realized by students. Once per year, the students convene to review the code of conduct, discuss concerns around it, and suggest changes. There are also several opportunities for students to take authentic leadership positions and serve on teams to achieve specific initiatives or goals.

Given the rigor of a college-level curriculum, the HFM PTECH team is unafraid to stretch and shrink course timelines to the benefit of students' ultimate goal: a college degree. Students will complete their associate's degree within four to six years depending on their career pathways and degrees. To help keep all students on track to graduate on time, teachers will readily compress some high school level courses so that students can accelerate in college-level courses sooner. This acceleration also allows students to take a state ELA exam earlier than most students to reduce conflict with other testing requirements. Teachers will extend the time for some rigorous college courses to make it easier for all students to meet the college proficiency level.

If Anything is Too Isolating for the Student → Make It Relationship Based

The team is always looking to make sure no student feels isolated or overlooked. Core to this is emphasizing the importance of relationships—between students and teachers and students and students. By always viewing decisions through the lens of relationships, the team has discovered creative ways to increase a sense of unity, mutual respect, and accountability to each other.

The mere act of showing up at a new school can feel isolating. The team conceived the two-week Bridge Program to meet both incoming students and staff. During this program, all attendees engage in exercises to get to know each other's stories, goals, needs, and hopes. The dedicated attention sets the tone of what's to come for them while at HFM PTECH: an environment where students feel privileged to attend and feel known and cared for.

HFM PTECH has adopted a practice of common expectations: Every student is focused on completing a two-year associate's degree. Students follow common procedures for planned interdisciplinary projects. Initial failures are to be viewed as learning experiences, and focus is redirected to meeting common proficiency expectations, not perfection. This also extends to students with disabilities, who are expected to meet all common expectations. While the specifics of students' learning paths vary, the awareness that everyone is united by common and high expectations creates a natural camaraderie and impulse to support each other.

These common and high expectations are balanced by an extraordinary support system at every stage of a student's HFM PTECH career. The team recognizes how important it is that their students transition smoothly from high school-level work to college-level work. Accordingly, teachers are in the process of finding ways to collaborate closely with the college professors to remove friction from this transition. There is guidance staff always available on both campuses to assist students as they meet the challenges of a rigorous, career-ready curriculum. Families are also supported and engaged in periodic meetings to discuss their child's progress, successes, and areas of opportunity.

The Impact

By stretching the perceived constraints of available resources and the bounds of the traditional education to create the exact environment in which their students thrive, HFM PTECH has had enormous success—and they're just getting started. When the idea for HFM PTECH was born, many doubted if a regional high school could work. Today, most everyone extols its virtues.

Many hoped this new model could provide an engaging learning experience that was rigorous and relevant while still meeting the traditional learning standards and diploma and degree requirements. What the community has managed to do has exceeded expectations. Students are getting the exact skills they need to excel in their chosen careers—immediately upon earning their degrees. Business partners have been so impressed that some have even offered students internships and jobs. Professors from Fulton-Montgomery

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Community College often remark that HFM PTECH students are outperforming their traditional (and older) college students.

By several accounts, subjective and objective, students are engaged, motivated, challenged, and learning. They are also growing through strengthened relationships, regular collaboration, and social interaction. Many parents marvel at how much their children look forward to school and communicate a noticeable change in confidence and maturity.

Student Learning Results

The school maintains a high daily attendance rate as an indication of student engagement each day. The 2016-2017 attendance rate for all students was 95%; it was 94% in 2015-2016 and 93% in 2014-2015. This impressive rate is even more impressive when considering that some students travel over an hour by bus to get to school.

In New York, the traditional academic benchmarks are the six academic Regent's exams required for graduation. In the first three years of HFM PTECH's existence, it has achieved the following strong student passing rates per exam: English Language Arts – 95%; Algebra – 85%; Living Environment – 93%; Global Studies – 93%; U.S. History – 98%. Even more remarkable is that passing rates for students with disabilities are not significantly different from those of the general population.

The initial cohort of HFM PTECH students is scheduled to graduate in June 2018. When they do, there will be no decision to make about who is going to college, as all students are IN college. Fourteen of the initial 50 students are expected to earn a high school diploma and associate's degree after four years at the school. Most of the cohort will complete a college degree in the fifth year.

Discussion Questions

1. Can we adopt HFM PTECH's four innovative attitudes to create micro-environments within our larger environment to better serve all our students' needs? Do we hold any attitudes that are standing in our way of thinking more flexibly and openly?

2. Have we recently and rigorously questioned our forms and structures to audit their continued utility and effectiveness in meeting goals?
3. Are there partners from within our community or in neighboring districts with whom we could form mutually beneficial relationships to the ultimate benefit of our students?
4. Are we doing everything we can to make all students feel seen and heard? How can we nurture and strengthen relationships—between teacher and student and student and student?