



MAINE CTE *PROMISING PRACTICES* MINI CASE STUDY

Foster Tech
Farmington, ME
Director: Glenn Kapiloff

PROMISING PRACTICE: Collaboration to Promote Rigor, Relevance, and Relationships

At Foster Tech, the focus is on collaboration to make things happen – teachers across schools and departments, students with one another, teachers and students on new ideas. It is not so much a “program” as a philosophical approach, one which director Glenn Kapiloff thinks is key to making education both rigorous and relevant. Kapiloff is able to cite many examples of how CTE instructors, high school teachers, and students are breaking through more traditional thinking about education to exploring educational approaches that engage students in learning and prepare them for 21st century careers. And while Kapiloff admits they have a long way to go before this way of teaching and learning is the norm instead of the exception, he feels strongly that this is the way of the future. Kapiloff sees his role in this as supporting people to put their ideas into action in service of educating kids.

Clearly others are beginning to see where this can go. Evidence that it is taking hold can be seen in the ways that schools are starting to make things happen for students across programs and the examples of how “ideas” turn into classes, programs and/or credits in rapid fashion.

Examples include:

During 2007–2008 a science teacher worked with the composites teacher at the tech center on an alternative energy initiative. Kapiloff notes that he “wishes we could’ve gotten more off the ground this year but it wasn’t scheduled as a class.” Next year it will be a full course offered in collaboration by Foster Tech and Mt. Blue — and students will get a full science credit. The course will focus on the challenge of creating a solar electric car with a composite body. (The tech center already holds the speed record nationally for a composite electric car.) Students will also explore how to integrate composites into wind turbine design and build some prototypes. They will conduct a feasibility study to see if wind can be used to power parts of the new high school being built. When asked about all of the logistics of scheduling and co-teaching, Kapiloff says they worked it all out — “right now there are 10 kids registered for the three block period.” He adds that it is “crucial that the personalities work well together,” which is the case here. He says that the science teacher and composites instructor will get time this summer to plan. Offhandedly, Kapiloff adds: “We’re also starting a biotechnology program. That’ll be another collaborative effort.”

When the Town Manager called about how the Tech Center might help with a feasibility study related to building a hydroelectric plant on Walton Stream Dam, Kapiloff eagerly responded —then realized that a collaborative team with tech center students and instructors, high school teachers, and University of Maine Farmington students and faculty might be the way to go. So some meetings got underway with 5-6 students from the tech center representing welding, building trades, and drafting bringing back the information to their peers and figuring out what was going to be needed to support each step. Then students across these programs began to talk. A group of students listened to a physics professor talk about flow rates. Drafting students consulted with students from other programs on what to include in their designs. This project will continue next year.

There is also integration across programs. For example, the commercial arts class worked with the composites class to create a material with original designs with embedded composites that got made into a kayak. The digital video class recorded the entire process so others could understand how it was made. When students worked on the prize winning electric car, the drafting class worked on the designs and consulted with the welding class and the composites classes that made the car. What excites Kapiloff about this is that it is not just the teachers saying “this is a good idea.” “It’s the kids — they’re learning to

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appreciate the knowledge another student has and how to do real world collaboration on real life projects.”

What difference is it making?

There are new programs and new opportunities for students. “Some are not filled yet but we have kids on waiting lists for many programs.”

Teachers are working more with other teachers. Relationships are getting built between the technical and the academic sides. According to Kapiloff, students are getting better support. The administrators from the sending schools work well with the tech director. Kapiloff cites several examples where collaborative projects were figured out so students could get credits they needed while doing rigorous, relevant work. “It gave them the motivation to succeed because they were interested in the topic.”

Kapiloff says 300 8th graders visited the tech center this year, “not just to take a tour but to sign up for an hour and do something interactive.” Tech students planned the activities and worked with the visitors. This is a way to help students see that they need to plan ahead academically if they want to come to the tech center.

Next steps:

- ✓ Make some of these opportunities more available and structure them “on purpose” so students can get credit and staff have time to plan together and work/co-teach
- ✓ Make sure that technical writing, reading, and presentation skills are taught, coached, and required as part of all tech courses so all students develop these, not just “top” students
- ✓ Redesign more and more educational experiences so the hands-on and the academics are really “meshed” and the learning is rigorous and relevant “as a matter of course”

For more information, contact Glenn Kapiloff at gkapiloff@msad9.org