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Mobile App Lab expanding reach into Pittsburgh-area high schools

Premium content from Pittsburgh Business Times by Malia Spencer, Reporter

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What started as a simple partnership between two local schools to teach students mobile app development has spawned a broader movement that organizers hope will link up several schools throughout the region.

Winchester Thurston, a Pittsburgh private school, teamed two years ago with South Fayette High School, a public school, to create an introductory mobile app development course. Last year, the Mobile App Lab expanded to five area schools. This year, organizers are opening the program to more schools by creating a larger framework and a weeklong Immersion Institute next summer to teach the curriculum.

Details of the institute are being worked out, but applications to participate will be accepted this fall, said [Teresa DeFlicht](#), director of City as Our Campus at Winchester Thurston, and one of the organizers. The program also is looking for working software engineers and computer scientists interested in volunteering.

"One of our goals is just to get the excitement going with the students," she said about learning computer science. "Some of the groundwork, that might not be as fun, but once they get going and they realize they can be a producer, the excitement of taking learning to the next level is palpable."

This computer science emphasis at the K-12 level is occurring against a national backdrop of workforce development concerns over a lack of science, technology, engineering and math readiness. The program began when Winchester was seeking ways to offer leadership opportunities to students excelling in the computer science track, DeFlicht said.

The lab uses the Android operating system, so to kick off the program, the students take a trip to Google's Pittsburgh office to see software engineers at work.

The first week of the program, students learn to put static pictures and text on the screen. Then they learn how to position the text or pictures using numbers. Next, they tackle animation loops and how to make the computer respond to choices, said [David Nassar](#), upper school mathematics, physics and computer science teacher at Winchester Thurston and the Mobile App Lab instructor.

Students have focused on games, but don't have to, Nassar said. "Once they have the framework, they can build many things."

Typically, Nassar works with 15 to 20 students.

"We keep reaching 20 (students) at a time," he said. "Each school we work with, the following year, (we want) it to feel comfortable to bring another partner in."

Since the lab is offered as an after-school program, it makes the collaboration between districts and the private school easier, DeFlitch said.

"We try to make it as low-cost as possible," she said, noting the partner schools pay for transportation to Winchester's campus, but the rest is free.

In addition to offering the program to more schools, Winchester seeks funding to buy tablet computers that can be lent to districts that might not have the infrastructure to support the program.

South Fayette is incorporating more computer science into its regular curriculum, and with this partnership, 15 students were sent to Winchester once a week for five weeks after school, said [Aileen Owens](#), director of Technology and Innovation at South Fayette School District. They were taught the programming language Processing and built mobile apps on the Android platform with the help of five Winchester students who acted as mentors.

"It was such a gift to us that they (Winchester) offered this to us," Owens said. "We were able to expand programming beyond where we have traditionally been able to go."

Once those South Fayette students completed the course, they could teach others. Last year, South Fayette partnered with Quaker Valley, Owens said. This year, they are working with the Mars Area School District.

At South Fayette, 26 students applied for last year's program, and this year 30 will be accepted, she said, noting they are limited by the number of computers. The students also have created a programming club to continue their work.

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