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Growing, From Berries to Tech

Watsonville Tecnología-Educación-Comunidad teaches students computer programming and prepares them for careers in technology.

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⊘ Updated January 6, 2012 at 7:56 pm   ▢

Editors Note: This story is the first of three stories in our series about Watsonville TEC, an award-winning program that encourages Watsonville youth to pursue careers in technology.

School has been out for an hour at in Watsonville, yet a group of tween girls cluster around computer screens, entranced by the video games taking shape in front of them.

They are students enrolled in Watsonville Tecnología-Educación-Comunidad (http://programservices.etr.org/index.cfm?fuseaction=projects.Summary&ProjectID=159), a grant-funded, after-school program for fifth graders and middle school students that gives kids a basic education in computers, then builds those skills into video game design abilities and beyond.

"It's cool," said Alejandra Villa Señor, a sixth grader at EA Hall Middle School.

On this winter afternoon, the 11-year-old was designing a game where a goldfish eats apples. She was using Kodu Game Lab, a Microsoft program that lets people—and kids— create games using a video game controller. Kids can build racecars or maze games, or challenges like Frogger where they have to get across a threshold without getting hit.

The Microsoft program eliminates code writing for the students, which makes it easy for them to experiment with gaming. That helps boost the confidence of these 11 to 14-year-olds around computers.

The goldfish game is the third that Alejandra has designed since she started at Watsonville TEC. She said the after-school program is opening her eyes to careers she could have when she grows up.

When Watsonville TEC began five years ago, it was an 18-month program for a small group of middle school girls launched by ETR Associates, a Scotts Valley-based nonprofit focused on health, education and social service issues (http://www.etr.org/about.html).

Since then, a series of grants from the National Science Foundation have funded Watsonville TEC to the tune of more than $1 million.

The first program, called the Girl Game Company, was the brainchild of Jill Denner, one of the two people who wrote the original grant. Denner wanted to reach out to underserved students, especially girls, and shepherd them into career paths they wouldn't have considered otherwise.

"It was more a passion of hers," said program director Jacob Martinez, a Watsonville resident and UC Santa Cruz graduate brought in to administer classes. He added that Denner is still involved in Watsonville TEC, compiling data on the program's impact.

When it began, the Girl Game Company was recognized as one of the top programs in the country for engaging students with technology, according to Martinez. And talk about backing that up. One of its first students five years ago—now a Watsonville High School junior—won a prestigious national award for female tech students in December.

Watsonville TEC also was well received in the Pajaro Valley Unified School District (http://www.pvusd.net/), where many schools struggle to meet state testing standards and a lot of students don't have computers at home.

"Kids love the computer technology programs. They're drawn to them." said Joe Trautwein, director of student services for PVUSD. "It's what our world's all about these days. They may not have access to them in the home, but they see them

everywhere."

Now, Watsonville TEC has grown to include video game programming classes for middle school boys, separate computer skills tutorials for fifth graders and for parents, and expanded to more schools. There is a social media component that provides young students a safe, controlled environment to explore online and a mentorship program that keeps high school students involved.

All together, Watsonville TEC has reached about 900 students.

"It's actually bigger than we proposed," Martinez said.

The heart of the program continues to be the middle school courses, which are separated into cohorts for boys and girls. The students learn video game design, participate in MESA (http://mesa.ucop.edu/about/)—a collaboration in science and engineering projects—and take field trips to colleges and tech-related employers, like San Jose State and the Google campus.

Daisy Ramirez, 16, alum of the Girl Game Company, does programming at home. She makes her own games. She said she has always wanted to go to college and has visited a lot of schools.

"I want to be a game designer," she said. "I want to work at Google one day."

The Watsonville High student also mentors younger kids through Tech Teach, the high school component of Watsonville TEC. She would like more youth to get into the program (she's drawn three cousins into Watsonville TEC and her younger brother may join next year). Ramirez said she enjoys "being able to interact with the kids—the children—getting them more involved in tech."

"Watsonville has been known as a place for strawberries and now I want it to be known as a place with girls and guys doing tech," Ramirez said.