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## Local

Officials push for video-game design in high schools

By JAMES HANNAH, The Associated Press

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It was a capture-the-flag video game with a mountain, river, human-like characters and flags hanging in the air. But 16-year-old [Greg Condit](#) wasn't playing it - he was creating it.

It was part of a video-game design course at a two-week summer camp coordinated by the [Columbus-based Ohio Supercomputer Center](#), which promotes computer education.

"I was creating the terrain, the landscaping, what the characters looked like. That was really interesting," Condit, of [Cincinnati](#), said Friday.

To capture the flags, the characters had to jump for them.

"That's the physics aspect," he said. "To accomplish that, it's all numbers."

Those who teach the course believe high schools should consider making video-game programming part of their curriculum because it can get students interested in math and science and prepare them for careers in the growing field of computer design.

"The students quickly realize that game design and development is not as simple as playing a video game," said [Pete Carswell](#), an engineer with the center. "They discover that the work requires the use of other subjects beyond programming. There are so many levels in learning that go on in a video game."

For example, designing a multiplayer game is very involved, he said.

"There is a lot of just really heavy puzzle-solving," Carswell said. "And you get bugs in the code where the characters or the game are not reacting the way you thought it should."

A virtual soccer ball created in one project didn't appear to move realistically because it traveled in an absolutely straight line, unaffected by gravity, wind or rotation of the ball. So the students had to do the math and physics research.

"We had to build in some algorithms to mimic that kind of behavior on the ball," Carswell said.

Video-game design seems to be catching on in high schools around the country.

[I Support Learning Inc.](#), an [Olathe, Kan.](#)-based software company, has created an interactive role-play game that teaches students how to make video games.

[Steve Waddell](#), lead developer and chief executive, said the company began selling the software to high schools five years ago and has recorded double-digit growth in sales each year. Its customers include hundreds of high schools in [Florida](#), [California](#), [Texas](#) and other states.

[Paul Ackerman](#) is in his third year of teaching video-game design at [Edgewater High School](#) in suburban [Orlando, Fla.](#) He uses software that puts the students in the scenario of being video-game developers for a fictional company called CarbonAde that promotes a new soft drink.

"The trick is that they must read, comprehend, do math, and problem-solve along the way in order to get to the game modification part where they really have fun," he said.

About 120 students take the course each year.

"The kids are engaged daily," Ackerman said. "Most of the time I don't even have to say anything to them. They come to class early, and I have to kick them out when the bell rings."

Carswell is in the process of developing free software designed to enable high schools to introduce video-game design into their

curriculum.

"The big problem is that we don't really have a large cadre of teachers that have taught this way in the past," said [Steve Gordon](#), senior director of education programming at the center. "We're asking them to teach in a new way."

Carswell said video-game design courses can prepare students for jobs as programmers and designers for video games as well as video-like games used in medical training, military recruitment and other areas.

Computer and mathematical science occupations are expected to grow by about 24 percent over the next decade, a rate that would add 822,000 new jobs to the field, according to the [Bureau of Labor Statistics](#).

Condit hopes to use the skills he acquired during the course in a career in business.

"I'm actually not a real big gamer. But it is a growing business," he said. "There's a good chance something I learned there will come up."

--- On the Net:

Ohio Supercomputer Center: <http://www.osc.edu/>

I Support Learning Inc.: <http://www.isupportlearning.com/>

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