

Young gamers get with program

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NEIGHBOURS

Video games can be an effective learning tool when kids program their own, rather than just sitting in front of someone else's creation, says the creator of a summer camp new to Calgary this year.

Programming even a simple game such as Pac-Man requires a practical understanding of mathematical concepts, says Elliott Bay, co-founder of Real Programming 4 Kids.

"Creating those streets and avenues involves a lot of math," Bay says.

"Kids have to program their Pac-Man to respect where the walls are. You don't want him going through the walls. You want him to go through the right places."

Real Programming 4 Kids started out as a math tutoring service in 1989 in Winnipeg, and added computer classes in 1993, after co-founder — and programmer — Bobb Burgess saw a Pac-Man game in a bar one day, and thought, "I can teach kids to do that."

"He quit his regular job and Pac-Man became a regular part of the program," Bay says. "We still use it for the introductory class, along with Frogger and Donkey Kong."

At the introductory levels, kids in grades 3 to 6 spend a week learning first the concepts and then the language of programming.

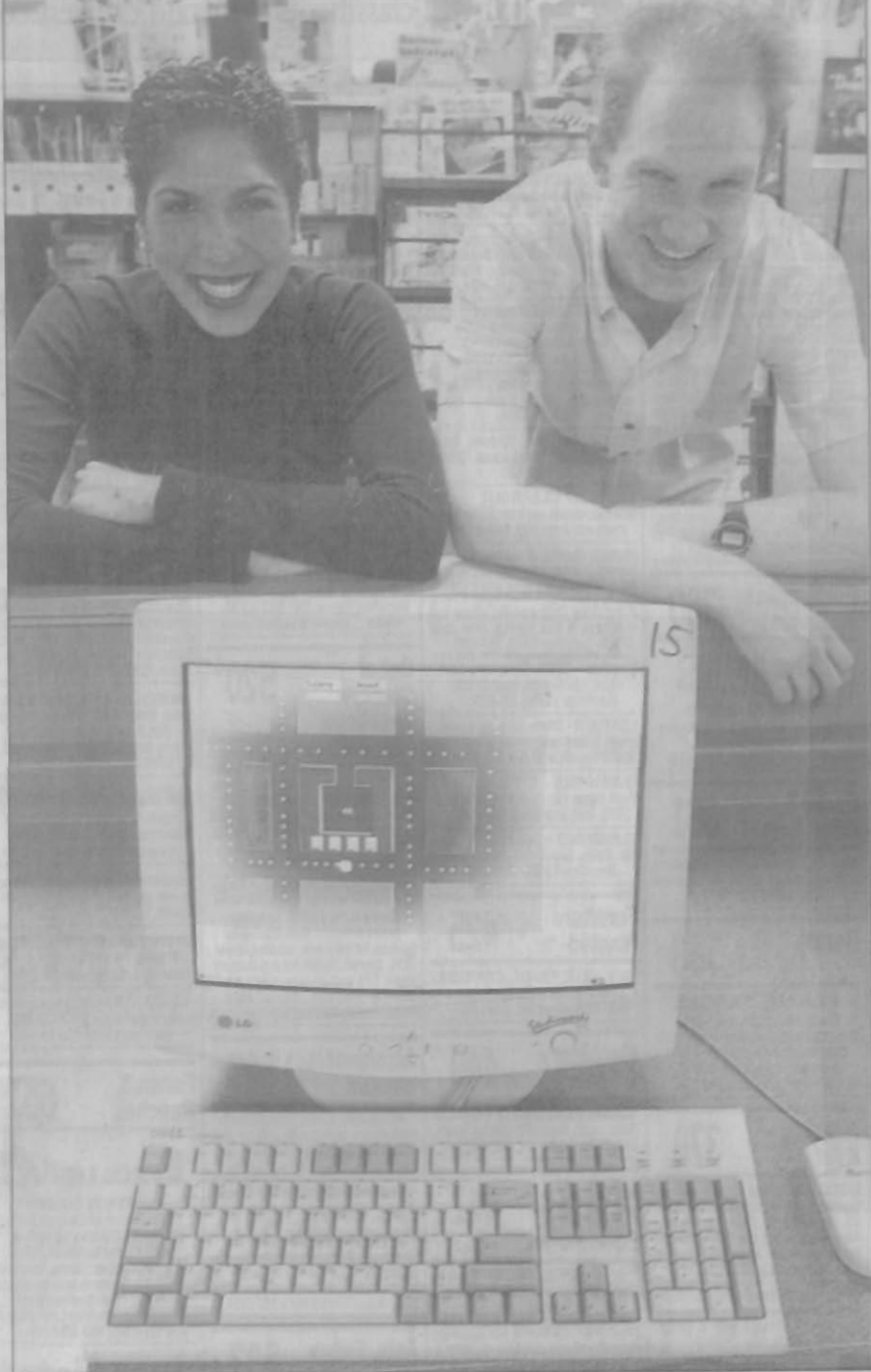
In groups with four children to one instructor, a Socratic method is employed, tackling a problem step-by-step through a series of questions.

"The white board is key," Bay says. "The kids are solving the problem, shouting out the answers. Then we convert that answer into code."

"In a typical adult class, you do syntax first. With kids, we do syntax last. First we solve the problems out loud, then convert it into a sort of pseudo-code, then convert that to the correct syntax."

In learning the language, students might be shown a piece of code that would make their Pac-Man go left.

"Then we would ask, 'How would you re-write this to make him go right?' and see if they can figure out



Mikael Kjellström, Calgary Herald

Tara Gallimore, game programming instructor, and Dave Nixon, Calgary on-site supervisor with the Real Programming 4 Kids program, are ready for a summer of helping kids explore their computer prowess.

that they need to change the minus sign to a plus sign," Bay says.

"It has a lot of geometric implications."

Instructor Dave Nixon says that — beyond a love of video games — a degree of comfort with math is key to success in the programs.

"A student has got to be good at math, or at least have a willingness to learn math concepts," Nixon says.

"If not, they're just going to get frustrated."

Parents can have their children test-drive the program by attending a free, 45-minute introductory class. The free session serves a dual purpose — it lets the kids see if they might like it, and it lets the instructors assess whether the student belongs in a beginner or ad-

vanced class.

"That way, if the kid doesn't like it, the parents don't have to shell out the money," Bay says. "The flip side of that is that we don't want kids who don't want to do it."

The one-week introductory classes start at \$441. The intermediate and advanced level courses, aimed at kids grades 7 to 12, generally run for two weeks.

The classes and free intro sessions are being held at The Third Academy, in Currie Barracks.

For more information about the program, go to the website at www.realprogramming.com, or call 1-877-307-3456.