LCWM students decode code at MSU

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A LCWM elementary student plays a video game designed by a Minnesota State University computer science student Monday. The objective is to destroy a virtual virus. Photo by John Cross



Computer science professor Guarionex Salivia shows kids from Lake Crystal Wellcome Memorial Elementary School how video games are coded during a field trip Monday to Minnesota State University. Photo by John Cross



From left, LCWM students Gabe Kietzer, William Schuster, Jordis Lewis and Jake McDougall try their hand at playing iPad games designed by MSU students.

MANKATO — Bodhi Chatleain may only be in fourth grade, but on Monday he was at least pretty sure what he wants to be when he grows up.

"A video game designer!" he said excitedly.

He tilted the shiny black iPad he was holding up and down and up and down and down again, staring intently at the screen as a flying baby skillfully evaded a series of oncoming rocket ships.

Michael Berez, another fourth-grader, looked on over his shoulder. Both from Lake Crystal Wellcome Memorial Elementary School, they were at Minnesota State University to learn about computer science, IT professor Mike Wells said.

The school is part of a pilot program to help teachers learn and pass along basic computer programming skills. It is based on the computer coding platform <u>code.org</u>'s online curriculum.

"It's where you learn about computer science and you get to do games, and in the end, you get to create you own game," Chatleain said, just as excited to explain how it works as he is to one day be a video game designer.

Launched in 2013, the site is a nonprofit dedicated to expanding participation in computer science by making it available in more schools and increasing participation by women and underrepresented students of color.

"It is important to spark kids' interest in technology as early as possible since most careers require some of these technology skills," Wells said. "Also, some research has shown that by as early as junior high, young girls begin to stray away from the STEM discipline."

Wells recently received a grant from <u>Advance IT Minnesota</u> to promote coding/programming skills throughout the region and used the money to introduce <u>code.org</u> at LCWM. This summer, he also will hold a summer training course for area teachers interested in adopting the curriculum.

It will be held 8 a.m. to 5 p.m. June 22-26. Teachers who take the class and go back to their classroom to implement the programming curriculum next fall will receive stipends.

LCWM Elementary Principal Dan Beert said he is excited by the possibility of continuing to teach <u>code.org</u> at the school. He also recognizes how in demand tech skills are and how big of a benefit it could be for kids to have them.

MSU's computer science department places well over 90 percent of its graduates in full-time positions upon graduation, according to Wells. Those students earn average starting salaries of \$50,000 to \$60,000 per year.

The school was also interested in being part of the program because it would expose students to MSU faculty and students.

"We're always trying to find ways to get our free- and reduced-lunch kids out to a college campus at an early age," Beert said.

On Monday, after several months of using <u>code.org</u> in class and during their free time, the LCWM fourth-, fifth- and sixth-graders got to meet MSU students from the university's computer science department.

A few of the Mavericks have designed their own video games, including the one Chatleain was playing on the iPad. Called "Buff Baby," it was written by Mubasser Kamal, student from Bangladesh.

"I've been coding since I was in third grade," he said. "So you could say I have a bit of a forte in it ... I think the first time I actually wrote code and made an app is when I got interested in it. I thought 'I can actually make something lots of people use."

The LCWM students were able to look at the code for his game and understand how parts of it worked. Kamal's professor Guarionex Salivia said Buff Baby is simple enough for anyone with coding experience to manipulate, but intricate in that it was designed to teach motor reflexes.

Games designed by other students taught the kids about geometrical shapes and how to get rid of a virus.

"We focus on coding versus graphics, so the games might not be much to look at, but they were all designed with a purpose," Salivia said. "And they're fun to play."

Two fourth-grade girls, Robin Bailey and Carliegh Ward, said they weren't sure if they wanted to study computer sciences but they're both having fun on <u>code.org</u>.

One of their favorite activities on the side is themed after the hit Disney movie "Frozen."

"I really like it," Bailey said.

"Me, too," Ward said. "It's a lot of fun."

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