

UI scientists reach out to students; Program helps grad students communicate, younger children learn

By Kate Baldwin, Daily News staff writer

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Rachel Brown saw something Friday most people would never even imagine. She watched a robotic tank perform ballet to the "Nutcracker Suite."

A special science unit on computer programming allowed the sixth-grader to see how the devices can make turns and other maneuvers that normally would be carried out by ballerinas.

Brown, 11, and her Lena Whitmore Elementary School classmates helped develop the programs that let the robots roll in unison and scoot across the floor to the timing of the Tchaikovsky composition.

"It was a good experience for us, learning about the robots," she said.

The experience was made possible through a special University of Idaho program called GK-12, which brings graduate student scientists into fourth- through sixth-grade classrooms across the region. The program launched in May 2006 and assigned 10 of these working scientists to elementary school teachers in Moscow, Potlatch, Genesee, Troy, Juliaetta and Lapwai.

The three-year project is funded by a \$1.8 million grant from the National Science Foundation. The project produces hands-on learning opportunities for the students while allowing the developing scientists to practice their communications skills.

Brown said her school's scientist, Randal Fox, was "really nice" and "helped us if we got messed up in the programs and couldn't find what we were looking for."

Fox, 27, said he merely tries to help the students understand more about the scientific method and other aspects of the fields of physical and chemical science.

Fox works with the students' teacher, Molly Pannkuk, for about eight hours a week. By observing her, he said he's learning how to communicate with the students, get their attention, and structure the lessons to keep them interested and help them learn.

Fox laughed as he explained that most scientists, who survive writing 100-page research papers and spending hundreds of hours in labs during graduate school, have lost some of their communications skills by the time they finish.

Through this program, Fox said he has "gotten more comfortable talking to students and people about what I do and other science topics."

Paul Allan, UI's GK-12 program manager, said it's easy for scientists to overwhelm people, yet they must be able to effectively present their research.

He said tomorrow's scientists need to be able to share their knowledge with the entire range of decision-makers, which stretches from the average person on the street to a room of legislators. This program helps emerging scientists learn to use different terms or simple analogies to relate new science to things average people already understand.

"This will enhance their ability to teach at any level," Allan said.

Pannkuk said the students seem to like having another face in the room for the science units.

"They have me all day, then they have someone who looks at the world a little differently," she said. "It's raising the level of enthusiasm and (providing) serious, real science for the kids."

She said it's encouraging to the students when Fox can explain science in a way that shows the concepts really aren't out of anyone's reach.

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[Two photos follow]



Geoff Crimmins/Daily News

A Barbie doll rides a Lego robot during the robot ballet at Lena Whitmore Elementary School in Moscow on Friday.



Geoff Crimmins/Daily News

Rachel Brown, left, and other sixth-graders program their Lego robots to dance to "The Chinese Dance" during a robot ballet at Lena Whitmore Elementary School in Moscow on Friday. Forty-seven students participated in the performance.