Elementary school students develop coding skills

By Jen Cowart

In Cranston Public Schools, the CS4RI initiative, spearheaded by Governor Raimondo to bring computer science education to all public schools by the end of 2017, is already in full swing at the secondary level; 21st Century Skills computer classes are a graduation requirement for high school and other computer science classes are offered, some which are eligible for college credits. The technology curriculum is fully implemented at the middle schools. According to library program supervisor Sue Rose, the elementary students learn computer science through their librarians, during their designated school day library time.

"The idea that every kid in every school has computer science in school is a wonderful idea," said Rose. "We really want to encourage computational thinking. In Cranston, at the upper levels computer sciences were already in place, but at the elementary level it was not as specific. We thought about the best way to go about implementing it consistently, and we thought of who has contact with every student. The itinerants (physical education, music, art and library classes), and decided to implement computer science through the kids' library time."

The students visit the library once per week on average, and recently, the librarians at the elementary schools across Cranston took advantage of the worldwide Hour of Code, which took place during Computer Science Education Week, and worked with the students on coding activities. Some of the activities used computers and some were "unplugged" activities that develop computational thinking skills with hands-on activities that do not require a computer. At Garden City Elementary School for example, librarian Meredith Moore worked with students in grades three, four and five on many of the unplugged activities which were available on the code.org website, including programming basics such as writing algorithms and debugging problems. The activities included graph paper programming, a pencil and paper activity, and "My Robotic Friends," an activity that used paper and pencil and plastic cups to configure the stacking of the cups.

KIDS TEACHING KIDS: The Hour of Code activities created a great opportunity for students who were more familiar with computer science to help those who were new to the activity. (SUBMITTED PHOTO BY SUE ROSE)
"The librarians had the opportunity to differentiate their coding instruction for all grade levels," said Rose. "Through our collaborative platform of LibGuides, everyone can share anything they're doing."

Also helpful to both the librarians and the students is the fact that there were one-hour coding tutorials online available to them which incorporated current popular themes such as Ice Age, Moana and Minecraft Design. "You can filter the tutorials by grade, by ability level, by student experience, by classroom technology, and by using blocks or actual code language, which allows the kids to code and do really cool stuff, and which levels the playing field," Rose said. "Once they know they can find those tutorials on the LibGuide (http://guides.rilinkschools.org/bobcats/HourofCode2016) and use them, they can go back again and again." As Rose looks ahead, she hopes that after-school coding clubs could be created, either through community collaboration or through a partnership with the high schools and their community service requirements for graduation. However, in reflecting on the current model at the elementary level, she's very pleased with this year's Hour of Code implementation.

"This was a really wonderful way to celebrate International Computer Science Education Week, with kids teaching kids. They were motivated and engaged, they problem solved and it was a beautiful venture."
TRENDING STORIES

30-minute CPR protocol raises issues (/stories/30-minute-CPR-protocol-raises-issues,120717)
3 DAYS AGO

Goodbye 2016, what did we learn from you? (/stories/Goodbye-2016-what-did-we-learn-from-you,120720)
YESTERDAY AT 1:25 PM

EG Animal Protection League plans for permanent Cranston home (/stories/EG-Animal-Protection-League-plans-for-permanent-Cranston-home,120725)
3 DAYS AGO

Lauren Paolino engaged to Chad Friel engaged to Chad Friel (/stories/Lauren-Paoilino-engaged-to-Chad-Friel,120710)
YESTERDAY AT 1:53 PM

Cranston’s First Lady, Fung ensure wreaths reach vets’ graves (/stories/Cranstons-First-Lady-Fung-ensure-wreaths-reach-vets-graves,120728)
YESTERDAY AT 1:13 PM

Cranston man arrested on drug charges following police search (/stories/Cranston-Police-Arrest-Local-Man,120737)
YESTERDAY AT 1:16 PM

YESTERDAY AT 1:54 PM

Jump in for some great causes (/stories/Jump-in-for-some-great-causes,120779)
3 DAYS AGO

CALENDAR

November 25 - December 31 | Nana’s Naughty Knickers, Newport Playhouse and Cabaret Restaurant, 102 Connell Highway, Newport, RI (/stories/Nanas-Naughty-Knickers,113315)

January 7, 2017 | Eco-Depot, Rhode Island Resource Recovery Corporation, 65 Shun Pike, Johnston, RI (/stories/Eco-Depot,120702)

January 9, 2017 | Rhode Island Active Toastmasters Meeting, New England Institute of Technology, 1 New England Tech Boulevard, East Greenwich, RI (/stories/Rhode-Island-Active-Toastmasters-Meeting,120240)

January 20, 2017 | A German Requiem, Saint Martin’s Episcopal Church, 50 Orchard Ave., Providence, RI (/stories/A-German-Requiem,120121)

January 21, 2017 | A German Requiem, Grace Episcopal Church, 133 School St., New Bedford, MA (/stories/A-German-Requiem,120122)

January 13 - 28, 2017 | I Hate Hamlet, The Arctic Playhouse, 117 Washington St., West Warwick, RI (/stories/I-Hate-Hamlet,120332)