Using robots to help raise student grades

By Art McFarland, Monday, March 21, 2011

NEW YORK (WABC) -- Looking to boost math and science? The answer may be letting robots take over. That's happening in more than a dozen public elementary and middle schools. In fact, 75 percent of the kids involved raised their overall grades by a half or full letter grade and 80 percent raised their math and science grades by a half or full letter.

The Urban Assembly Institute of Math and Science for Young Women is one of 18 schools, in Brooklyn guided through a robotics program by New York University's Polytechnic Institute. The robotics project by an all-girl team of young "scientists" has won awards for their school.

"They have to come up with a research project, conduct the research, and come up with a robotic solution," said teacher Noam Pillischer.

"We see physics and engineering as a part of life," said student Kyeana Cummings.

"Primarily our focus is on Central Brooklyn in schools that have traditionally been underserved in science and math," said Ben Esner from NYU's Polytechnic Institute.

The strategy is for NYU Polytechnic to give science training to existing teachers, and then send its own graduate students into the schools to work with those teachers.

"It makes me a better scientist, because now I can explain it better to students and I can explain it better to a non-scientific audience," said Jennifer Haghpanah, a NYU Poly grad student

"I could have not thought of the things that she brought to the table," added Noam Pillischer

The project began with bacteria found inside the school and research, which determined the best way to clean it would be with vinegar applied by the robots. The educators tell us that the hands-on involvement required by these projects and the students' extreme interest in what they're doing have led to significant improvements in their grades, particularly in math and science.

"It helps me during my schoolwork. It makes me feel motivated to keep going, even if it gets really hard," said student Jordan Smith.

"I want to be a scientist. I could make stuff, like make cures for diseases that no one has ever found out," said student Theory Cogbill

NYU polytechnic plans to double the number of schools in the program.
http://www.poly.edu/