

VEX Robotics

Providing STEM enrichment to underserved youth in Fairfax



Background

As the workforce continually evolves, the number of STEM (Science, Technology, Engineering and Math) jobs created over the past ten years has grown at three times the rate of non-STEM related positions. And while demand continues to grow, the nations' and especially county's workforce needs in STEM are not being met.

Challenge

- STEM opportunities are not equally available to all students
- Robotics programs require significant time and money investments
- Cost barriers prevent STEM programs from being offered to communities with a large percentage of low income students

Solution

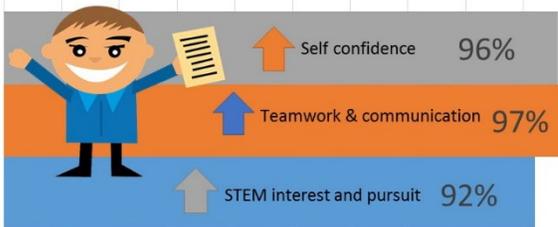
OP³, the Fairfax County Department of Neighborhood and Community Services (NCS), the Northern Virginia Community College (NOVA) SySTEMic Solutions and the Fairfax Chamber of Commerce joined forces to provide VEX Robotics into the county afterschool technology centers. Working with corporate and nonprofit partners like the Community Foundation for Northern Virginia, Cox Communications, GAPSi, Cornerstones and CSC, \$17,000 was raised and coaches recruited to bring the program into the afterschool centers.

Impact

150 low-income, ethnically diverse youth in the afterschool programs were able to participate in the VEX robotics club and competitions with several clubs competing in the regional and state competitions. Attendance in the centers with robotics programs improved. In 2013 the participants reported:

- 96% increase in self confidence in using computer and technology applications
- 97% increase in communication & teamwork skills
- 92% increased interest in pursuing STEM courses in high school, post-secondary degree programs and careers

Robotics Breeds STEM Success



Tom Egan, Vice President PMMI

PMMI is a trade association whose members use robotics throughout their business providing solutions to the marketplace. For us it's a great opportunity to engage the youth to show them some of the fun you can have with robotics on the way to learning just what robots can do and how important they are, not only in business, but also as a career path.

