

Techtronics: Hands on Exploration of Technology in Everyday Life

Techtronics has been an enormous success over the past 11 years. It was an engineering, project-based after-school program that was very well attended. It has now evolved into an after-school science program run by the science teachers. We are very pleased with the fabulous relationship developed between Rogers-Herr Middle School and the Pratt School of Engineering at Duke University as a result of the Techtronics program and wish Rogers-Herr the very best.

Publications

For more information about the program, see the following publications:

Klenk, P.A., G.A. Ybarra, and G.T. Kelly. Assessment of Gender Differences on Ratings of Engineering Learning Modules in Middle-School Youth in an After-school Setting. Proceedings of the 2007 American Society for Engineering Education Annual Conference and Exposition.

Klenk, P.A., L.D. Oliver and G.A. Ybarra. Engineering Modules for Teaching Science in an After-School Setting. Conference on K-12 Outreach: Enhancing Science K-8. NC State University. 2005. pp. 34-36.

Klenk, P.A., G.A. Ybarra, and R. Dalton. Techtronics: Hands-On Exploration of Technology in Everyday Life. Proceedings of the 2004 American Society for Engineering Education Annual Conference and Exposition. Session #2004-761.

Klenk, P.A., L.H. Wang and G.A. Ybarra. Techtronics II: Hands-On Exploration of Technology in Everyday Life. Proceedings of the 2003 American Society for Engineering Education Annual Conference and Exposition. Session #2793.

Klenk, P.A., K. Barcus, and G.A. Ybarra. Techtronics: Hands-On Exploration of Technology in Everyday Life. Proceedings of the 2002 Frontiers in Education Conference. November 2002.

TechXcite Informal Science Education

<http://techxcite.pratt.duke.edu>

TechXcite is a partnership between the Pratt School of Engineering at Duke University, the National 4-H Council/4-H Afterschool, and North Carolina 4-H. TechXcite developed out of the successful Techtronics Program.

The program is directed by Drs. Gary Ybarra (PI) and Paul Klenk (Co-PI). Over the last six years, they have co-created the successful Techtronics after-school engineering program at Rogers-Herr Middle School and Lowes Grove Middle School in Durham, NC. The TechXcite: Discover Engineering curriculum is building on this work by creating engineering learning modules in seven theme areas for use in after-school programs nationwide. Together we have created an engaging, substantive, experiential and inquiry-based curriculum in engineering, technology and applied science for 4-H supported middle school youth in after-school programs across the nation. We hope to encourage youth in both rural and urban settings to pursue careers in engineering and technology. Click on [Curriculum](#) to learn more about specific learning modules.