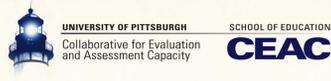


# Collaborative, K-8, STEM Pilot Project for Library Summer Reading Club: Bridging Scholastic Learning Semesters

Murrysville Community Library: Charles B. Greenberg and Jamie K. Faló; Math & Science Collaborative, AIU3: Nancy Bunt, Michael Fierle, Barbara Lease, Corinne Murawski, Gabriela Rose, and Samuel Shaneyfelt; CEAC, University of Pittsburgh: Cynthia Tananis, Keith Trahan, and Dana Winters; WNL: Cesare Muccari



## OVERVIEW

Four professional organizations in Western Pennsylvania are collaborating on a two-year pilot project (2014-2015), whose broad goal it is to advance K-8 STEM learning at public libraries.

## GOALS

- Incorporate STEM learning in K-8 Summer Reading Club programming in public libraries, as well as other children's programming during the year, as informed by curriculum grade-level standards
- Bridge grade-level learning during the otherwise low-STEM-content, out-of-school summer months
- Make volunteers and family members a part of the learning, so that children and their families realize enrichment in both the library and home settings

## BACKGROUND

Annually, and nationally, public libraries have been sharing a themed set of guidelines and activities for K-8 Summer Reading Clubs for about twenty years. For the first time, in 2014, the theme was explicitly science-based, "Science: Fizz, Boom, Read!"

## COLLABORATORS

- Murrysville Community Library
- The Math & Science Collaborative, an educational service provider department of the Allegheny Intermediate Unit 3 (AIU3)
- Westmoreland Library Network, a consortium of 24 public libraries
- The Collaborative for Evaluation and Assessment Capacity, School of Education, University of Pittsburgh



## OBJECTIVE

The two-year pilot program has been designed to have the Math & Science Collaborative staff professionally train librarians, administrators, and volunteers for orienting children participating in the Summer Reading Club program, their parents and guardians to STEM learning in particular, based on scholastic Common Core State Standards (CCSS) in Mathematics/English Language Arts, and Next Generation Science Standards (NGSS).

## PRIMARY FUNDING SOURCE

- Community Foundation of Westmoreland County

## METHODS

### Workshops

- Eight half-day training workshops were conducted at the Murrysville Community Library from January through April 2014. Four full-day training workshops were conducted at WLN headquarters, a more centrally located site for member libraries from January through April 2015. Each was led by a pair of staff members from the Math & Science Collaborative.
- Workshops included explanative discussion by the Coordinators, hands-on-activities connected to children's literature, extensive interactive discussion, and idea sharing.

### External Evaluation

- Two surveys were constructed by the University of Pittsburgh's Collaborative for Evaluation and Assessment Capacity to examine the effect of the program on the children who participated in the Summer Reading Club program and the library staff, administrators, and volunteers who participated in the training.
- Training participants and children who participated in SRC were contacted via email to complete the survey.



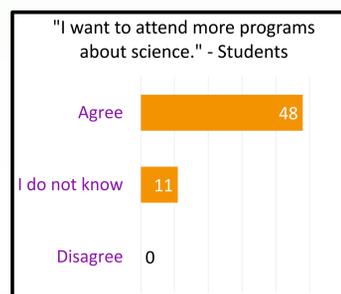
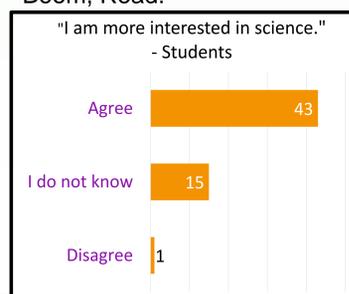
## RESULTS

### Key Findings for the Training Participants

- Roughly half of the training participants (57%) had never received any prior professional development in mathematics and/or science.
- More than two-thirds of respondents (71%) strongly agreed or agreed that they are better able to answer students' questions about various STEM concepts and assist families in helping children to learn and understand math and science.
- A large majority (81%) indicated greater confidence in their ability to select more appropriate resources to improve children's knowledge of math and science.

### Key Findings for the Students

- Gender and grade level seemed to be a non-factor for student enjoyment of Summer Reading Club; however girl respondents indicated a greater interest in science than boy respondents as a result of participating in the Science: Fizz, Boom, Read! program (girls: 80%; boys: 61%).
- Almost three-quarters of student respondents (73%) indicated an increased interest in science as a result of the Science: Fizz, Boom, Read! program.
- A large majority of student respondents (81%) stated that they wanted to attend more programs about science and were more interested in science experiments as a result of Science: Fizz, Boom, Read!



## CONCLUSIONS

### Based on the Responses from the Survey

- Children's librarians from multiple libraries began immediately to plan together for the year's Summer Reading Club, which they had not done before.
- Librarians expressed appreciation for having had identified for them STEM children's books of high value and credibility.
- As a given, for the first time, there is now an ongoing working collaboration among scholastic trainers and public librarians.

## WHAT'S NEXT ?



Super Easy! Exciting! Fun!

- Meets Common Core State Standards in Mathematics/English Language Arts, and Next Generation Science Standards
- Focuses on one story connected to Summer Reading Club theme
- Provides extensions to strengthen connections to home and school
- Supports library survival and growth

## PRIMARY FUNDING SOURCE



- This material is based upon work supported by the National Science Foundation I-Corps™ for Learning grant under Grant No. 1546720



## REFERENCE

Greenberg, C.B., Bunt, N., Faló, J.K., Fierle, M., Lease, B., Murawski, C., Rose, G., Tananis, C.A., Trahan, K., and Winters, D. 2015. "CCSS NGSS Pilot for Library Summer Reading Club: Informal K-8 STEM Learning as a Bridge for Formal Scholastic Learning." *Science Education & Civic Engagement: An International Journal*. (Winter). 19-27.

For additional information please contact:  
 Jamie K. Faló  
 Library Director  
 Murrysville Community Library  
 4130 Sardis Road  
 Murrysville PA 15668  
 jamie.falo@wlnonline.org