Introduction to Innovation

Case Western Reserve University
National Science Foundation

Outcomes Summary 2017

The short-term goals for Introduction to Innovation are to engage grade 2-5 teachers in science and engineering practices, model the integration of science, engineering, and literacy, and develop interdisciplinary lessons.

The long-term goals are to build teacher efficacy around science instruction, dedicate more instructional time to science, and have interdisciplinary project based units become the standard in grade 2-5 classrooms.

• All teachers reported to be more confident in their ability to engage students in science and engineering practices as a result of their participation in the program.
• Teachers anticipated a significant increase in student inquiry in their classrooms in the coming school year.
• All participants recognized when instructors were modeling the integration of science, engineering, and literacy and felt able to do this themselves.
• 50 percent of teachers reported the program helped them design project-based units.
• Participants showed a small normalized learning gain (0.22) on the Experimental Design Aptitude Test.

• Teachers’ efficacy beliefs and student outcome expectations were consistent with their peers and increased slightly after completing the program.
• Reviews were mixed on the adult learner component of the program. Some teachers appreciated the exposure to faculty research while others preferred that time be spent on additional activities.
• Several teachers recommended allowing additional opportunities for grade level collaboration.