

CASE STUDY: PROCESS IMPROVEMENT

The Field Museum – Program Evaluation

About The Field Museum

The Field Museum, located in Chicago, is one of the foremost natural history museums in the world. With a collection of more than 20 million items related to the sciences, humanities and the arts -- exhibits, public learning programs and international research are linked to serve a diverse public of varied ages, backgrounds and knowledge.

Problem

Conservation Education staff wanted to identify changes in teacher and student knowledge, behaviors and attitudes towards the environment from having attended museum programs during a three year grant cycle. Specifically, Conservation Education staff wanted to identify the point at which students took independent action to care for or about the environment.

Solution

Over three years, TNI Consultants LLC

- met with The Field Museum staff to develop a three-year evaluation plan
- educated staff about survey research, methods and pros and cons of each
- conducted a comprehensive review of the environmental education evaluation literature;
- guided staff in articulating five research questions
- developed five questionnaires (i.e., Teacher Content, Teaching Preferences, Teachers and the Environment, Students and the Environment, Student Content) and a pre- and post-test for students and teachers, ensuring validity and reliability through pilot testing
- worked with museum staff to administer questionnaires to 1,047 students and 54 teachers; facilitated focus groups of students and teachers
- trained museum staff in data entry, auditing 10% entries monthly
- created statistical databases using SPSSPC
- analyzed data by single year and full three years
- worked with a statistician to ensure changes found were a result of the program
- wrote comprehensive reports each year and a summary report for the three years

Results

Students made statistically significant gains in knowledge. Teachers made statistically significant gains in knowledge of local environmental issues and content, increased their inclusion of local biodiversity in their teaching and reported higher confidence levels when teaching environmental science (www.fieldmuseum.org/ceepublication/assessment.asp).

TNI Consultants LLC collaborated with Conservation Education staff to present results at the North American Environmental Education conference and contributed to *A Model for Science Learning*, a monograph about the ladder programs and evaluation process, disseminated internationally (<http://www.fieldmuseum.org/ceepublication/>).

Testimonial

“Dr. Nolinske demonstrated a high level of professionalism with a sincere dedication to consistency, quality and dependability. The Field Museum truly appreciates her efforts over the past three years in allowing us to identify the point at which students take independent action for the environment.” *Carol Fialkowski, (former) Director, Environmental & Conservation Programs, The Field Museum, Chicago, Illinois*