

***Evaluation, Center for Authentic Science Practices in Education
[CASPiE] (NSF)***

Funding Agency:

National Science Foundation

Contact Person:

Gabriela Weaver
Associate Professor
Chemistry, Purdue University
Phone: 765-496-3055
E-mail: gweaver@purdue.edu

Evaluation:

5 years
\$150,000

Ohio's Evaluation and Assessment Center for Mathematics and Science Education (E & A Center) serves as an evaluator for the Center for Authentic Science Practices in Education (CASPiE). The goals of this project are to (a) provide first- and second-year students with access to research experiences as part of the mainstream curriculum; (b) create a collaborative, "research group" environment for students in the laboratory; (c) provide access to advanced instrumentation for all members of the collaborative to be used for undergraduate research experiences; (d) help PUI faculty develop research projects so that their own

research capacity is enhanced and the students at these institutions can participate in this research; and (e) create a research experience that is engaging for women and ethnic minorities and appropriate for use at various types of institutions, including those with diverse populations.

The evaluation of CASPiE uses a mixed-methods design. Questionnaires, observations, faculty and student interviews, and advisory board comments will be conducted to collect both qualitative and quantitative data. This data will then be used to provide both formative and summative information concerning the project's goals.

Previous findings indicate that CASPiE participants better understand the relation of chemistry labs to real research and are more interested in science and science-related careers than non-participants. The qualitative research suggests that students feel the labs related more to authentic research. The data also indicates strong support with regard to collaborative group work and peer leaders, two dynamic features of the CASPiE project.

This evaluation reinforces the E & A Center's capacity to evaluate an online professional development project.