

Ocean Discovery Institute

Ocean Science Explorers Initiative Evaluation Report 2008

Ocean Discovery Institute defines success based on the outcomes of quantitative and qualitative evaluation led by Roxanne Ruzic, Ed.D., a contracted specialist in educational research. Dr. Ruzic received her doctorate in education from Harvard University. She is an education and research consultant and teaches graduate level courses in research methods for Chapman University.

This report includes evaluation results from the *Ocean Science Explorers Initiative* including scores on objective science tests to assess content knowledge and understanding; and data from surveys and interviews measuring attitudinal and behavioral changes such as interest, confidence, and self-efficacy. In addition, student and teacher participation information is tracked.

SCIENCE

*“We didn’t have to just sit out and listen, we got to try everything out.”
–5th grade student, Hamilton Elementary*

1,450 students participated in **13,131** hours of science instruction.
43 teachers participated in professional development.
43 classrooms received books and science materials.

Increasing interest & participation in the sciences among teachers and students from underserved communities

- The number of students who reported being interested in a career in science increased by 10% after students completed the program.
- 100% of teachers said the program made students more interested in science.
- 100% of teachers said the program helped students become more confident in science.
- In interviews, students uniformly reported enjoying hands-on science.

Increasing performance & persistence in science by students from underserved communities

- 100% of teachers said the program helped students learn science.
- 100% of teachers said the program made it easier for students to achieve the goals associated with the science standards.

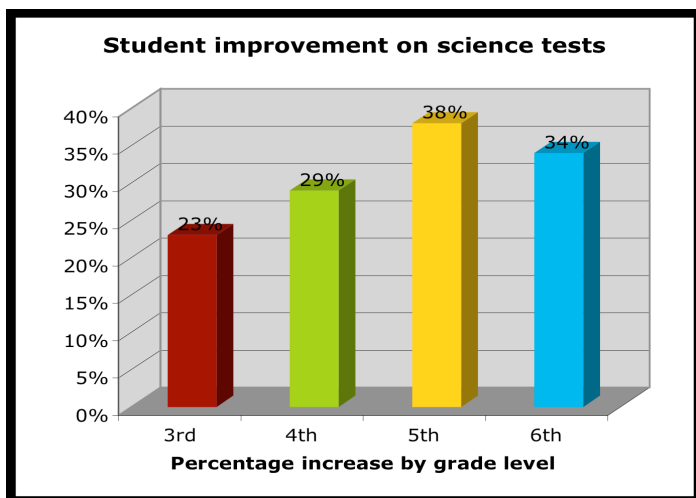


Figure 1. Students did better on a science test, on average, at every grade level after participating in the Aquatic Adventures program. All differences in test scores are statistically significant.

NATURE & ENVIRONMENTAL ACTION

“ [Ocean Science Explorers] is really fun...you learn...about fishes and helping the environment.”
—4th grade student, Carson Elementary

1,450 students participated in a field trip to a natural setting and took action to help the environment.

Increase interest & engagement with the natural world among students from urban communities

- 92% of students who completed the program reported they help the environment.

Increase diversity among those who support and act for the benefit of the environment

- 827 student-created conservation campaign buttons were made and distributed to the 6th grade *SEA Series* participants at Monroe Clark Middle School and O’Farrell Community School.
- 20 bags of trash were removed from students’ neighborhood canyons.
- Native seed was collected and dispersed in students’ neighborhood canyons.
- 15 storm drains adjacent to the students’ school were painted with “No dumping...I live downstream” stencils.
- 215 youth were mentored by older students in how to make positive environmental decisions.

TEACHERS & STUDENTS ARE ENGAGED & SATISFIED

“My students loved [Ocean Science Explorers]!”
—5th grade teacher, Hamilton Elementary

“Sign me up for next year!”
—6th grade teacher, Montgomery Middle School

100% of students interviewed said they enjoyed the program. No student had anything negative to say about the program, despite being asked specifically what parts of the sessions he or she did not like.

100% of teachers were enthusiastic about the program and said they would choose to participate again.