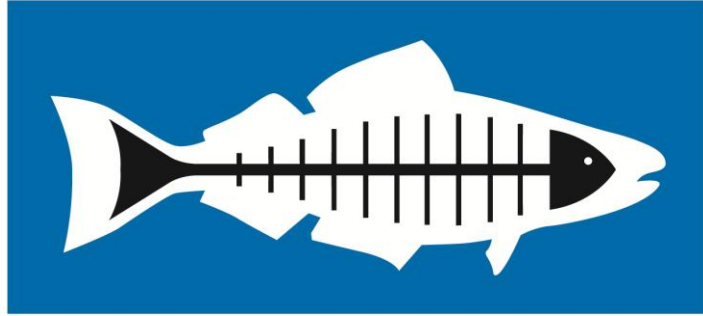


KEY TO THE SEA



where your classroom meets the ocean

Annual Report: 2012-2013 School Year

Mission Statement

In the spirit of openness, and through collaboration, communication and resource sharing, Key to the Sea strives to provide teachers with supportive professional development and multi-disciplinary, marine science curricula, which meets state and national science standards. Key to the Sea endeavors to promote environmental stewardship in students by stimulating their sense of wonder, learning and empowerment through key experiences in the environment.



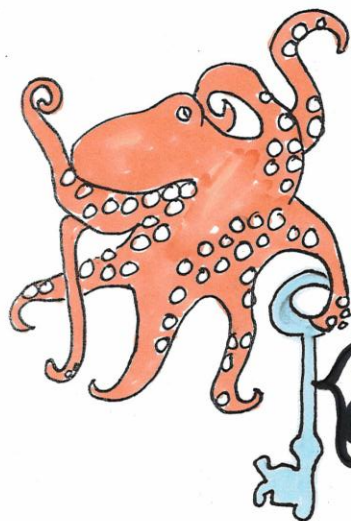
Introduction and Program Overview

Key to the Sea celebrated its thirteenth year during the 2012-2013 school year. Since 1999, the program has been serving area elementary (K-5th grade) students and teachers, providing them with high quality, science-based, environmental education focused on watersheds, coasts and our ocean. Since those early days when a group of Los Angeles informal educators came together to create an environmental education program to meet the requests of teachers who wanted to teach more about our local environment and individual impact on that environment, the Key to the Sea Program has used a formula of teacher training workshops and student field trips to spread its message.

The program has been revised and refined over the years so that it currently consists of two 6-hour workshops for teachers: Workshop I focuses on individuals and their connection to the local watershed and our coasts where the students and teachers will be visiting on their field trip. Workshop II delves more deeply into the watersheds and the local action impact on our global ocean. Both workshops have a written curriculum full of hands-on activities and scientific explorations that a teacher can use in the classroom. At the workshops, the teachers receive the curriculum, the training to use it in their classroom, and all the materials to put a Saturday workshop's training into use come Monday morning. Once teachers have completed both workshops, they are considered to be Veteran participants and no longer need to attend a workshop to participate in a field trip.

After thirteen years, all four partnering aquaria still participate in the partnership, leading workshops, promoting the program, and offering the field trips at their sites. The program couples the teacher training with a field trip to one of the partnering aquaria: Cabrillo Marine Aquarium in San Pedro, the Los Angeles Conservation Corps' SEALaboratory in Redondo Beach, the Roundhouse Marine Studies Lab and Aquarium in Manhattan Beach, and Heal the Bay's own Santa Monica Pier Aquarium. USC Sea Grant has maintained a very active role in the partnership as well, while the Los Angeles County Office of Education continues to assist the Key to the Sea Program in promotion and advertisement among teachers. It's a rare feat that so many partnering organizations have maintained their commitment to a program for such an extensive period of time, and a true testament to the strength of the program itself.

On the field trip, each site has tailored the program's particulars to their individual location, but the content and learning objectives remain the same: 1) inspire a curiosity and burgeoning understanding of the beach environment and the animals that call it home, and 2) connect the students and their daily lives to the impact that they have on the environment, encouraging stewardship behaviors over negative impacts. Students look at the beach through the eyes of a scientist, going beyond the place of recreation and relaxation to a greater grasp of the delicate and dynamic beach habitat. All program partners are thrilled to be able to introduce students and teachers to the sandy beach environment through the lens of scientific exploration, and for many students, just allow them to experience the beach and the ocean for the first time.



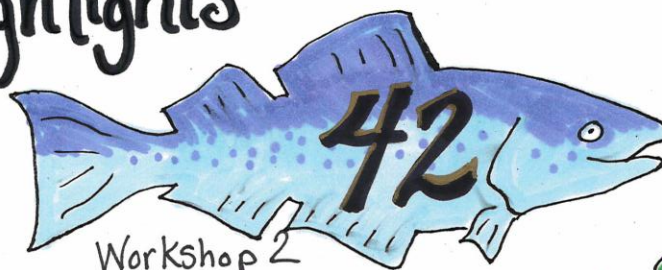
Key Highlights



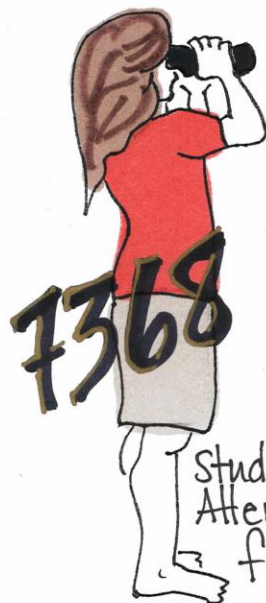
Field Trips



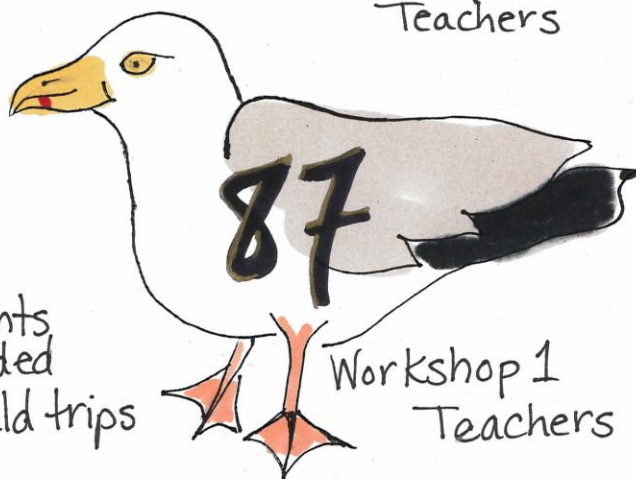
Bus Stipends
Awarded



Workshop 2
Teachers



Students
Attended
field trips



Workshop 1
Teachers



Veteran
Teachers

2012-2013

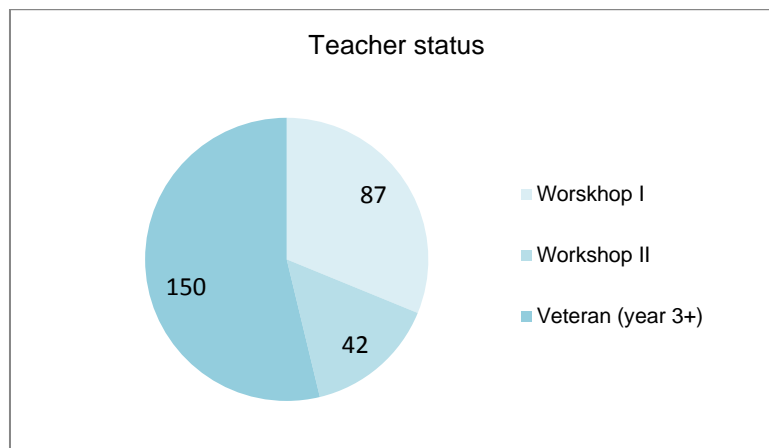
Participant Data

Summary Table of the Key to the Sea 2012-2013 School Year

| | |
|----------------------------------|------|
| Total # of Teachers Participated | 287 |
| Workshop I Attendance | 87 |
| Workshop II Attendance | 42 |
| Veteran (3+ years) Attendance | 150 |
| Attended field trip only | 8 |
| Field Trips | 136 |
| Bus Stipends Awarded | 68 |
| Schools Participated | 82 |
| Districts | 14 |
| Students | 7368 |
| Title 1 Students | 5930 |
| % of Title 1 students | 86% |

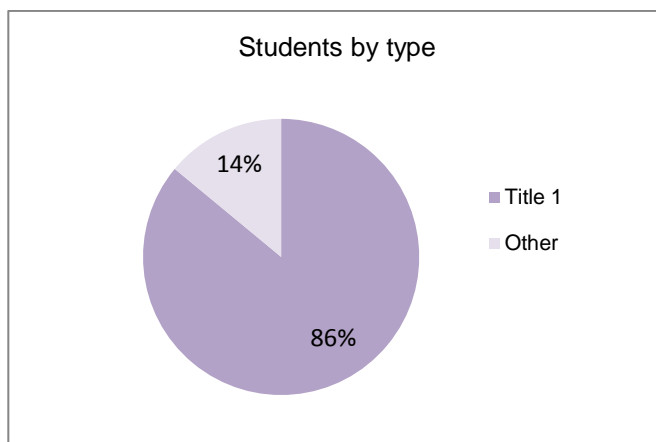
During the 2012-2013 school year Workshops I and II were offered six times, from September to March. A total of 129 teachers attended these workshops, and an additional 150 veteran teachers participated in the program (veteran teachers no longer need to attend workshops). An additional 8 teachers participated in the field trip only. In some schools a field trip or science coordinator implements the field trips and the Key to the Sea curriculum in the school, therefore the classroom teachers do not need to attend the workshops. This accounts for the 8 teachers who attended the field trip only.

Figure 1. Teacher Workshop / Veteran attendance



Through our field trips the program reached 6,868 students; representing 82 schools from 14 districts (see Attachment 1 for the complete list of schools and their corresponding data). Students who attend Title 1 schools, or those schools whose income level is so low as to qualify for additional federal funding to provide students with free meals, accounted for 86% of the students we served (5,930 students). Aside from the program's field trips, we directly reached an additional 500 students through our participation in the Children's Water Education Festival in Orange County.

Figure 2. Title 1 Students



There were a total of 136 field trips that took place at the four partnering aquaria. The Key to the Sea program was able to provide \$300 transportation stipends to offset the cost of the bus for 68 field trips due to our generous sponsors. Of the remaining field trips, some were sponsored by grants that the partnering aquaria received, so the classes were not necessarily without assistance. Without transportation assistance, some field trips were cancelled as the schools could not afford to pay.

Figure 3. Field trips that received Key to the Sea Grant- Sponsored Transportation Stipends

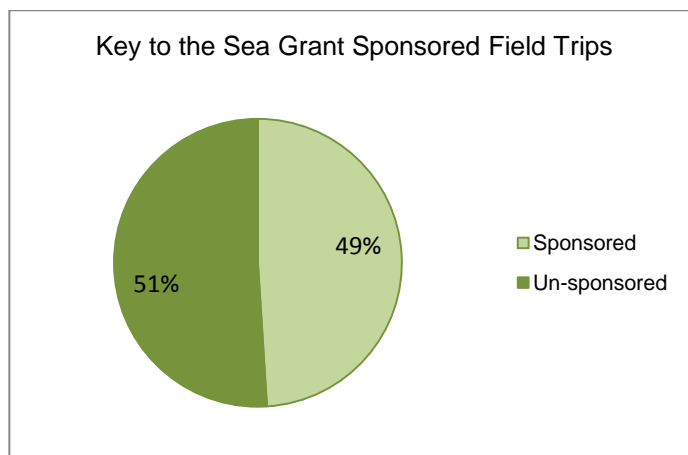
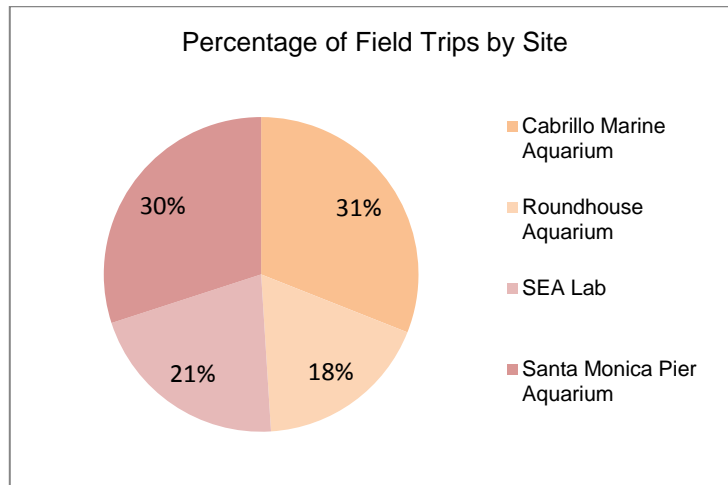
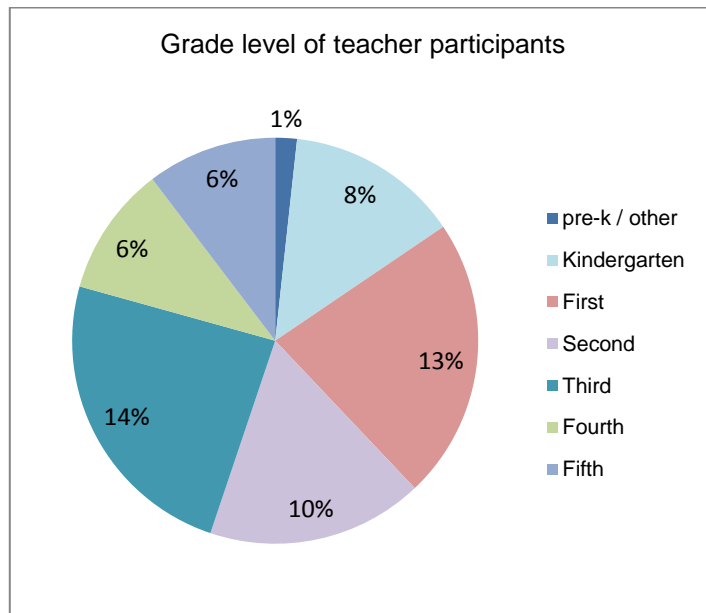


Figure 4. Field Trip locations



In looking at the teachers we serve, we can see that the program reaches many grades (figure 4). This past school year saw the highest percentage of first and third grade participants. Participants described here as “other” may be science or field trip coordinators that teach multiple grades.

Figure 5. Teachers by grade level taught



Teacher Program Evaluations

We ask teachers to complete evaluations of both their workshops and field trip experience to better understand how the program is being received and where we can make improvements. Overall, teachers are overwhelmingly pleased with their Key to the Sea experiences. Attachment 2 includes some direct quotes from teacher about their experience. Mid-way through this school year we began sending digital photos to teachers from their field trips in return for their post-program evaluation, which helped to increase the post-program evaluation response compared to the previous year. Charts 6 and 7 demonstrate combined responses from Workshop I and II regarding teachers' opinions of their workshops. Charts 8 and 9 examine teacher's opinions regarding specific topics of their workshops.

Figure 6. Expectations for Workshop Experience

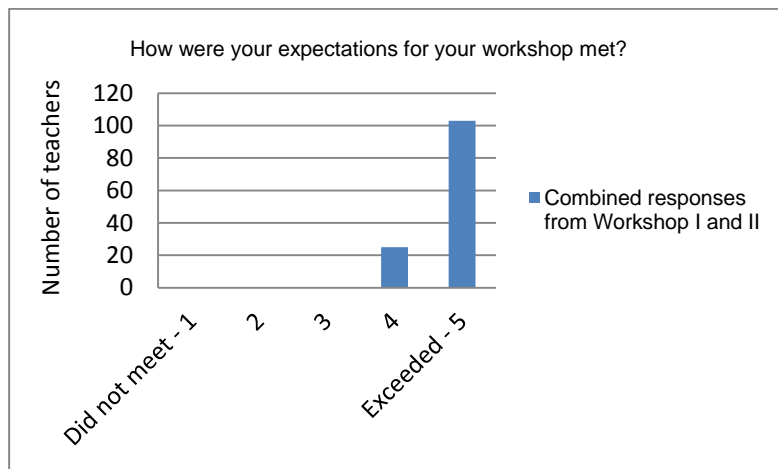


Figure 7. Teacher's opinions on curriculum's effectiveness

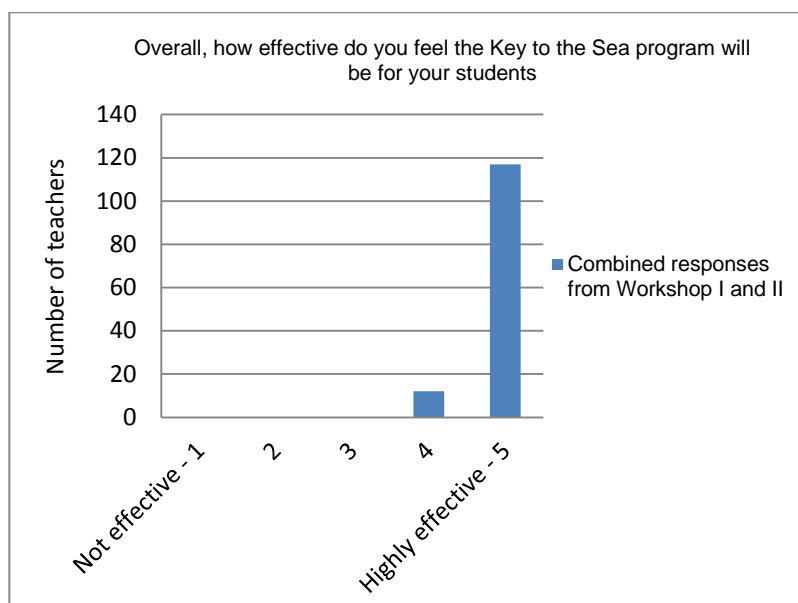


Figure 8. Workshop I Topic Evaluations

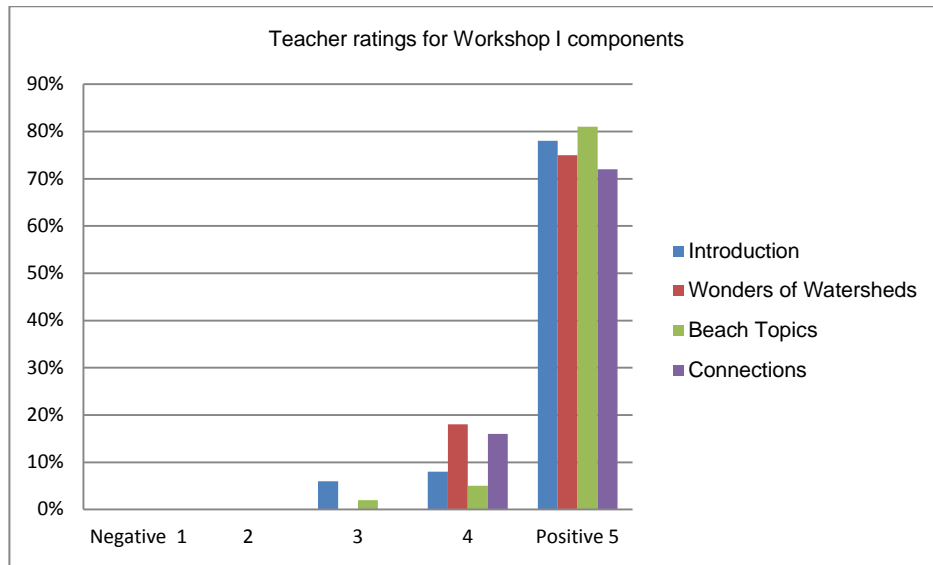
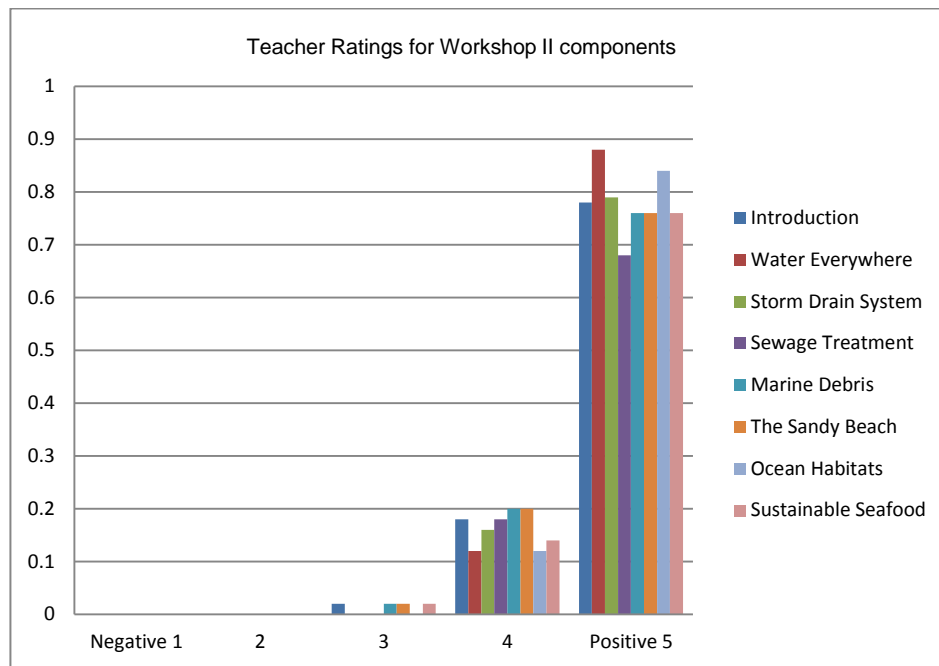


Figure 9. Workshop II Topic Evaluations



This year we added questions to the post-program evaluation comparing knowledge and behavior before and after participation in the Key to the Sea program. Chart 10 illustrates the increase in teacher's comfort level after attending a workshop. Chart 11 illustrates the effect that Key to the Sea curriculum and field trips had on students.

Figure 10. Effect of workshops on teachers' comfort level teaching environmental concepts

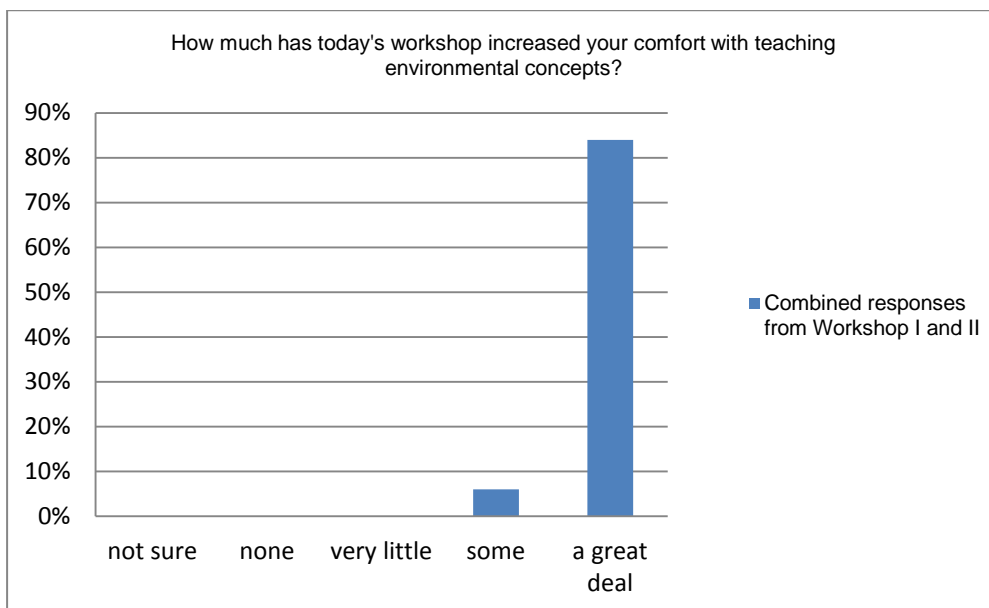
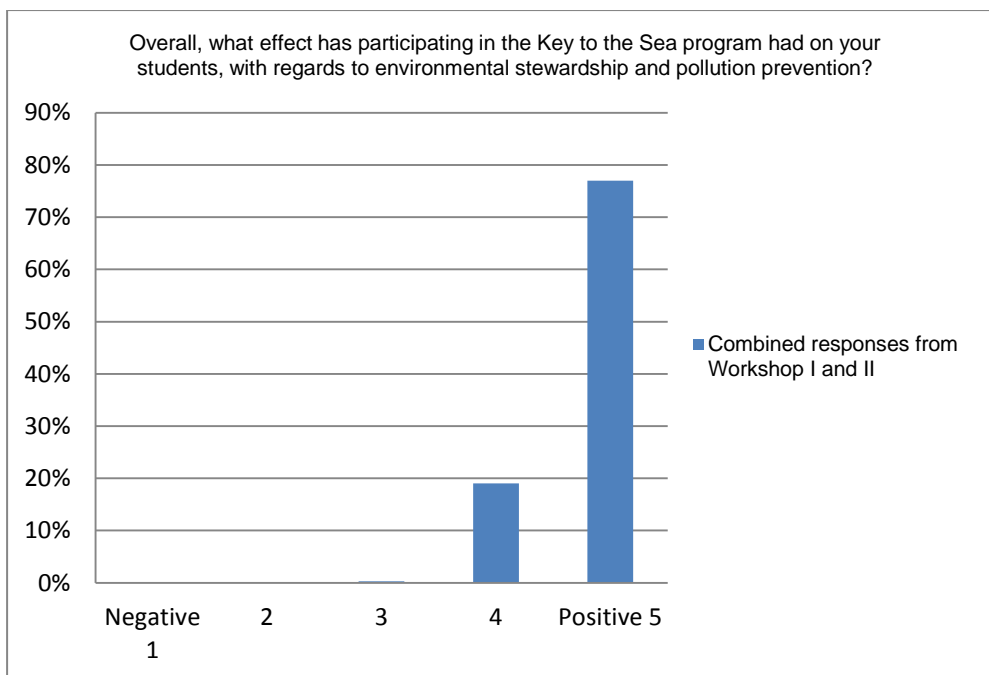


Figure 11. Perceived effect of Key to the Sea participation on students



Additional Highlights:

After researching ways to improve our field trip photo process, Key to the Sea staff implemented an online digital photo system using Fotki. This now allows for digital pictures to be taken during the field trip and teachers can choose to receive the complimentary prints. We are very pleased to have eliminated the need for disposable cameras, allowing us to cut down on plastics and unnecessary waste, and teachers are happy with the system.

After one year as Key to the Sea Coordinator, Virginia Greb left Heal the Bay at the end of the school year to pursue her teaching credential and look into graduate school programs in Environmental Education. She was a wonderful addition to the team, and we wish her the best! Former Heal the Bay staff member, Amber Maron returned as the Key to the Sea Coordinator after returning from her travels abroad.

Program Support:

The following funders generously sponsored the Key to the Sea Program during the 2012-2013 school year:

City of Long Beach Department of Public Works – Storm Water and Environmental Compliance Division

Employees Community Fund of Boeing California

The Gesso Foundation

The Hauptman Family Foundation

Macy's Corporate Giving

Santa Monica Seafood RSVP Program with FishWise

Southern California Gas Company

Wells Fargo Foundation

Without the generous support of these funders and community partners, the Key to the Sea program would not be possible. Every penny donated helps to provide participants with high-quality environmental education curriculum designed to promote an interest in science, exploration and a healthy respect for nature, which serves as the foundation of environmental stewardship.

Additionally, we would like to thank the interns, naturalists and support staff that generously gave their time to share their knowledge and passion with teachers and students.

Key to the Sea Teacher Feedback

Workshop I

Best Workshop I've attended.

Second grade teacher, Lincoln Elementary

I am beyond thrilled to be sent home with so much wonderful, usable, functional material and ideas.

pre-k – 1st grade, homeschool instructor

Workshop II

Outstanding workshop and materials. Presenters were great and friendly.

3rd grade teacher from Main St. Elementary

Workshop was well organized. Instructors were extremely knowledgeable and clear.

3rd grade teacher from Main St. Elementary

Field trip / overall program

We love this program and are very grateful for the opportunity to attend The Key to the Sea Program. It is your grant funding that allows us to take this trip. THANK YOU!

2nd grade teacher, Norwood St. School

Terrific job, as always! Love the hands on reinforcement of our science curriculum! Fabulous! Can't wait to come again!

Lowell Elementary School, Cabrillo Field Trip

My students learned so much and had fun doing it because it was hands-on. This program is well organized and the leading teachers are up to date with information that affects our environment. I would love to continue taking my first graders to have such a positive experience. Thank you so much.

1st grade teacher, Addams Elementary

I feel that this program is wonderful. The curriculum really does impact how children make a connection on taking care of mother earth.

Kindergarten teacher, Alexander Science Center

"Positive way to help kids understand how even the smallest gestures make an impact. Educational and informative, kids were introduced to the concept of habitat with visual and physical evidence".

5th grade teacher, Palmdale Learning Plaza