

4-H On the Wild Side 2010 Program Evaluation

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Overview

On the Wild Side is an overnight environmental education program for students attending schools in Sacramento's low-income communities. A team of teenagers and adults plan and deliver the program which takes place two weekends at the end of the school year. The 4th-6th grade campers arrive with their class on Saturday morning, rotate through five teen-led educational sessions, share meals and songs around the campfire, and interact with the natural world in ways not possible in the city.

Program Goals

Since its inception in 2000, 4-H On the Wild Side has demonstrated consistent outcomes in student learning and teen leadership. This year the program wanted to increase not just knowledge about the environment, but the experiences of "doing science" for campers. To encourage critical thinking and problem solving, young people need the opportunity to question and to investigate. This year's staff training emphasized allowing students to explore their environment and puzzle through questions they may raise themselves.

Elementary school participants develop:

- Expanded knowledge of the natural world and systems within it.
- An enthusiasm for nature and outdoor living experiences.
- An appreciation for the importance of conservation and environmental stewardship.
- A fun, positive experience with peers and staff in the outdoor setting.

Teen teachers expand their:

- Skills and confidence in program planning and delivery.
- Understanding of the process of inquiry-based learning.
- Sense of contribution to their community.
- Feelings of satisfaction and pride through successful project completion.

Program Implementation

Population Served

4-H On the Wild Side served youth from a variety of communities in Sacramento County. Participating schools came from Downtown (William Land) and South Sacramento (John Cabrillo, John Reith), Meadowview (SAC Prep) and Rio Linda (Rio Linda Elementary), Tahoe Park (Tahoe) and the east side of the city (Golden Empire, Isador Cohn). These are largely Title I schools with high ethnic composition. The teens came from these neighborhoods and also the suburbs of Carmichael, Citrus Heights, Fair Oaks, and Rancho Cordova.

Table 1: Profile of On the Wild Side 2010 participants

Ethnicity	Elementary Students (n=140)		Teen Teachers (n=22)		Adult Staff and Chaperones (n=30)	
	Count	Percentage	Count	Percentage	Count	Percentage
African American	47	34%	1	4%	9	30%
Asian/Pacific Islander	19	14%	5	22%	7	23%
American Indian	2	1%	0	0%	0	0%
Caucasian	37	26%	17	74%	12	40%
Hispanic	35	25%	0	0%	2	7%
Gender						
Female	88	63%	17	67%	19	63%
Male	52	37%	6	33%	11	37%

Emphasizing Science Process

Staff Training: The staff attended a day-long and weekend training sessions, as well monthly meetings to select, organize and practice the educational activities they presented at camp. To help teen teachers (and their adult partners) understand the difference between “teaching about” and “doing” science, this year’s training featured sessions from *Tools of the Trade II: Inspiring Young Minds to be SET Ready for Life!* Training activities included “What is Science?” (Session 2), and “Hands-On! Minds-On! Inquiry and Experiential Learning” (Session 4). Trainers emphasized the 4-H SET Abilities, especially observation and allowing campers to analyze and reason.

Campers Become Scientists: All activities at On the Wild Side are experiential and encourage exploration and deductive thinking. The following activities took place:

- **Lake Vera Water Testing:** Students use tools to collect data about the water in the lake including temperature, pH, turbidity, and salinity. Data gathered throughout the weekend was compiled at the end of camp and students asked to analyze and reason as to why measurements did or did not vary.
- **Trees as Habitat:** Using observation skills, students study trees for evidence of how animals utilize trees as habitat. They note animals they see on trees or indications of animal life (holes in bark, chewed leaves), then present their data to rest of the group.
- **Oh Deer!:** A game simulating animal population dynamics based on habitat. Students graph the population’s rise and fall over time and interpret the results to understand how the availability of food, water and shelter affect animal populations.
- **Rocks Rock!:** Students observe and compare a collection of rocks—igneous, metamorphic, sedimentary—then gather and analyze rocks they collect themselves.
- **Shrinking Habitat:** A simulation modeling the relationship between producers, herbivores, and carnivores, and the impact development has on loss of habitat and the food chain. Students explore how habitat can be preserved and where, in their own communities, it’s been altered.

Program Impacts

Student Learning

To test program related knowledge, pre- and post-tests were administered to students before their arrival to camp and their departure from camp.

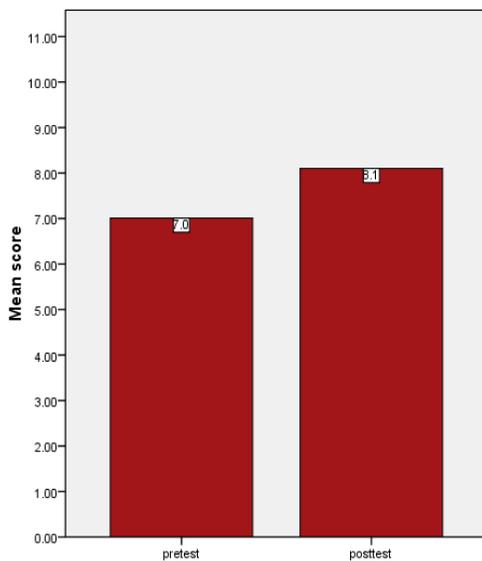


Figure 1: Comparison of pre-and post-test scores for 2010 On the Wild Side participants (n=121).

	Pre-test	Post-test
Means	7.01	8.1
Std. Deviations	2.22	2.59

The difference is significant at $p = .00$ level.

As in past years, data indicates that the teen teachers were effective teachers in helping younger students learn about the environment. Students came away with a better understanding of the interrelationship between habitat and living organisms, increased vocabulary, and information germane to ecosystems. This measure may not show student reasoning, a hopeful outcome of having the youth participate in constructing their knowledge as young scientists.

Student Enjoyment

Central to On the Wild Side's mission is helping youth from urban settings enjoy and feel comfortable in the nature. Understanding and appreciating the natural world is key to developing values of stewardship. For 60% of the students, this was their first time to sleep outside, and a third had never been camping. As in past years, most participants enjoyed camp with several mentioning that they wish the experience was longer.

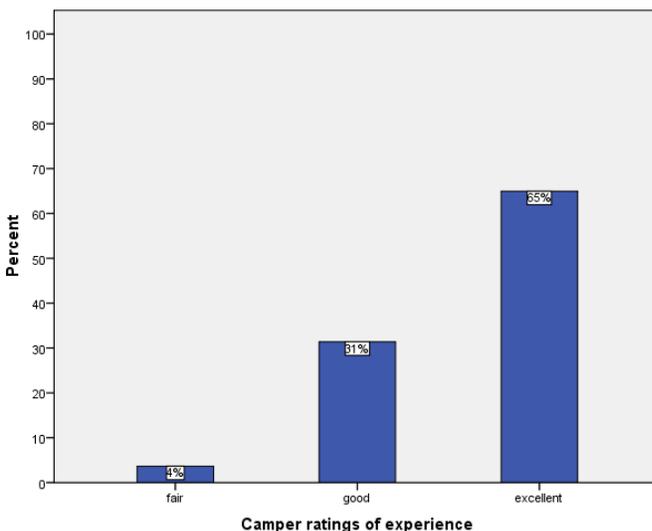


Figure 2: Campers rating of their On the Wild Side experience.

Over 90% of the students participating in 4-H On the Wild Side rated their experience as good or excellent. The most common camper complaint concerned the camp facilities.

Teen Teachers Skill Development

Teens engage in a rich learning experience by virtue of planning and leading the program. They engage in teamwork, learn to work with children, organize and deliver presentations, and for some, write and submit grants. At the conclusion of the program, teens fill out a staff evaluation designed to gather their thoughts about the program’s implementation, their relationship with adult volunteers, and their assessment of personal leadership skill development.

Using a retrospective pre-post survey (a four-point Likert scale), teens indicated if they had grown in their leadership skills in six different areas. The elements measured, and the percentage of teens that indicated growth, are listed in Table 2. The area of greatest reported growth—both in terms of degree as well as number of teens reporting it—was sharing opinion with adults. While working with children showed the greatest difference in before and after scores, only 40% of teens indicated that they grew in this area. This was because many teens rated themselves as skilled in this area before participating in the program.

Table 2: On the Wild Side teen teachers indicating self-reported leadership growth

Leadership Element	Average Before	Average After	Difference	Percent of Teens Indicating Change
Making a presentation	3.05	3.85	.80	50%
Sharing my opinion with adults	2.85	3.80	.95	60%
Sharing my opinion with other teens	3.40	3.95	.55	40%
Organizing my time	3.25	3.85	.60	30%
Organizing supplies	3.05	3.85	.85	50%
Working with younger children	2.95	3.95	1.00	40%

When asked how they had changed as a result of the program, teens said, “I’m more confident when speaking,” “I’m better at working with kids,” and “This year being at OTWS has made my love for working with kids grow stronger and it made me more confident in the abilities I have.”

Contribution to Community

Promoting civic engagement through community service is yet another goal for On the Wild Side teen teachers. On the evaluation, 94% of young staff members felt as though they had made an important contribution to their community through On the Wild Side. As one young person reflected, “Awareness of programs like OTWS makes me feel that volunteering can be extremely fun at times.” Ninety-three percent felt their own awareness of nature and the environment had increased.

On the Wild Side 2010 Financial Report

Category	Description	Budgeted	Actual
REVENUE			
Grants	4-H Service Learning Grant	500	500
	Grant Advisory Board for Youth	500	500
	4-H SET Grant	2,500	2,500
Fees	Sacramento START sites (5 @ \$300)	1,500	1,500
	School sites (2 @ \$600; 1 @ \$300)	1,500	1,500
	Retreat (30 @ \$10)	300	440
Donations	CSUS Science Education Equity Program		2,000
Reserves		2,250	
Total Revenue		9,050	\$6,940
EXPENSES			
Personnel	Lifeguard for camp sessions	150	0
Program Supplies	Program materials	250	303
Facility	Facility rentals (Camp weekends \$1,900; retreat \$350)	2,250	2,250
Food	Camp weekends \$1,900 Retreat \$ 300	2,200	1,886
Transportation	2 buses for each camp session Vehicle mileage (2 per weekend and retreat)	3,800	3,884 189
Recognition	Adult volunteers (30) and teens (30)	300	33
Program Evaluation	Both summative and formative	100	0
Total Expenses		\$9,050	\$8,545
Total			*(\$1,605)

* Expenses exceeded revenue by \$1,605 for 2010 On the Wild Side program. Deficit was covered through program reserves.

On the Wild Side Student Voices and Photos

“The part of the program that meant the most to me was inquiry-based learning...and the connections with the kids.”

--CSUS Student and Coach



“(The adults) were awesome. They helped us in what they could and gave us ideas. They cheered us on and they listened to us, respected us, and we had fun.”

--Teen Teacher

“The campfire was really special because most of the kids have never had that experience and their enthusiasm really showed in their eyes.”

--CSUS Student and Coach

“This year being part of On the Wild Side had made my love for working with kids grow stronger and it made me more confident in the abilities that I have.”

--Teen Teacher

