

Inquiry in the Community

Embedding Inquiry Science in a Youth Organization

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The Need

62% of mothers believe science education is very important to their children's success. However, only 35% of them feel comfortable helping their kids with science learning.¹ *What if we could empower parents and youth group leaders to confidently "do science" with kids?*

Project Goals

- Empower adult volunteers to comfortably and effectively facilitate inquiry science explorations with groups of youth.
- Pilot a model of science-positive training & support that creates culture change within an existing youth organization.

¹United States Department of Education. (2004). National survey of parental attitudes toward science education.

The Plan

During this four-year pilot program, we developed staff and volunteer capacity to deliver workshops and support in inquiry science facilitation to new volunteer Girl Scout troop leaders in Western Washington. Curricula and project resources were piloted with approximately 250 volunteers in selected communities, and are now being implemented throughout Girl Scouts of Western Washington, Girl Scouts of Oregon and Southwest Washington, and Girl Scouts of California's Central Coast.

Why Inquiry?

Inquiry science is particularly aligned with the pedagogy used in youth development contexts. This makes delivery of science experiences to youth more likely.

The inquiry approach is...

- Learner-led
- Hands-on & experiential
- Cooperative

Project Principles

As a project bridging youth development and science, we:

- Translate informal science education principles and practices into relevant youth development language and concepts
- Incentivize inquiry practices by linking them to youth development outcomes

Project Components

All new troop leaders gain skills in inquiry science facilitation as part of their required training for becoming a troop leader. Inquiry science is also used as a tool to teach needed youth development skills.

Learning Settings

- Workshops
- Science activity demonstrations at monthly volunteer meetings
- Phone and email check-ins from mentor staff/volunteers
- Written resources and activities
- Engaging potential volunteers/girls at "Welcome to Girl Scouts" events

Curriculum Modules

- Experiencing inquiry science
- Turning kids' questions into inquiry explorations
- Helping kids plan experiments
- Asking open-ended questions
- Guiding reflection
- Comparing levels of adult/girl control in an activity
- Adapting activities to different age levels and abilities

Target Audiences

- New troop leaders
- Local support volunteers
- Volunteer workshop facilitators
- Girl Scout staff

Target Area

- 11 communities in western Washington state.
- Expanding to Girl Scout councils in Oregon & central California.

Results

A robust project evaluation is being conducted by Evaluation & Research Associates. Results are from a mixed-methods evaluation conducted in 2009-11.

- Prior to participating in the program, most troop leaders (81%) had little to no knowledge of inquiry science. After participating in the program, leaders reported becoming both more knowledgeable and more comfortable with inquiry science.
- Survey and focus group data suggest that about half to two-thirds of troop leaders who attended the workshops subsequently implemented inquiry science activities with their troops. Those that did not primarily cited time issues, rather than lacking skill/comfort with inquiry science.
- Based on self-reports from and observation of troop leaders, leaders who implemented science activities demonstrated inquiry science skills such as asking open-ended questions, helping girls investigate science using a hands-on approach, and leading reflection activities during and after an activity.



Get involved:

- Curriculum freely available for download in 2012
- Additional resources available:
 - Activity guides
 - Project replication guide
- Ask us how to use this project's resources and approaches in your organization!

