

Project: SciGirls
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Project Website: <http://pbskids.org/dragonflytv/parentsteachers/scigirls.html>

Project Categories: Programs, Curriculum Development, Media

How to Reach Primary Target: SciGirls Outreach is a national project that puts a unique combination of videos and inquiry-based activities into the hands of tween girls (ages 8-13) across the nation. Supported by grants from the NSF Program for Gender Equity, the project is a powerful coalition of Twin Cities Public Television (TPT), PBS member stations, science museums and – most important – community-based organizations devoted to encouraging girls in science, technology, engineering and math (STEM). In the three years since the program was inaugurated, we've trained over 100 educators and community leaders and reached over 5000 girls in grades 3 through 8.

How to Reach Secondary Target: Leader training is an important aspect of the SciGirls program. All grantee organizations are given full-day SciGirls workshops in their home communities. These training opportunities are attended by program staff and devoted to sharing the SciGirl approach to science inquiry and research-based best practices for encouraging girls in science.

General Demographics: According to a summative evaluation of the first three years of the program, by Knight-Williams Research Communications, the number of participants served by SciGirls projects ranged widely, from a low of 12 to a high of 512. While the average number of girls served across the projects was 112, the majority of projects served between 12-40 participants. With the exception of one project that targeted educators, the projects mainly targeted girls, typically 5th - 9th graders. To recruit girls, grantees partnered with various youth organizations, most often the Girl Scouts, followed by Boys and Girls Clubs, and Girls Inc. While grantees did not verify the types or numbers of underserved youth participants, all stressed that their projects were designed with this goal in mind, and that they chose partners accordingly. Grantees most often described serving girls from low income, followed by racial minority backgrounds. Less frequently they described serving girls with special needs, residing in rural regions, or from military families.

Funders

Funders: National Science Foundation
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Evaluation and Field Testing

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Evaluation Strategy: To assess the impact of the SciGirls grantee program, Knight-Williams, an independent evaluation firm specializing in informal science education media projects, conducted a summative evaluation of the program's first three years. The evaluation focused on 17 of the 24 SciGirls grantees funded from 2005-2007. This group of 17 included the PBS stations for which grantee contacts were available (8 out of 14) and the science centers/museums that completed SciGirls projects by the evaluation period (9 out of 10). The evaluation relied on secondary data, most notably the grantees' project proposals and final reports, and the reflections of the principal staff responsible for directing the grantee projects, as reported through in-depth telephone interviews and an online survey. While this retrospective design did not allow for comparisons over time, the evaluation findings confirm that the grantees addressed the overall goals of the SciGirls program and fulfilled their grantee obligations to TPT. These goals and obligations, combined for the purposes of this overview, included: 1) participate in a SciGirls training; 2) strengthen proposed community partnerships and act as lead coordinator among partners; 3) reach diverse audiences; 4) use SciGirls resources to reflect the inquiry and authentic investigation approaches in DragonflyTV; 5) deliver hands-on science encouragement and career guidance in creative and dynamic ways; 6) complete a final report documenting the project's outcomes; and 7) demonstrate sustainability beyond the completion of the grant.

Published Report: <http://tpt.org/scigirls/>

Project Descriptions

Summary: The combination of exciting videos, easy-to-use activity guides, Web resources, and hands-on training has been the key to the success of SciGirls. We select video segments from the library of DragonflyTV that feature authentic investigations by girls. We added a selection of our video profiles of professional women scientists and engineers. We package these videos in a set of DVDs, accompanied by a user-friendly activity guide.

In January 2007, the National Educational Telecommunications Association (NETA) named WSIU's SciGirls program the best small-market outreach campaign based on a national project. The judges

commented that SciGirls Outreach “made science come alive,” and that their efforts were something that PBS stations throughout the country could emulate.

While leaders are unanimous in their praise for the SciGirls Outreach videos and activities, the most rewarding comments come from the girls who have “become” SciGirls. For example, one young girl from a housing project program in Springfield, MA told organizers, “Veterinarians use science to do their jobs. Now I want to be a vet.” Another girl enjoyed the generous time and space allowed for her experiments: “We tried to figure out what makes a Lego car go faster and kept making our car better. I like that we get a lot of ‘do-overs.’ ” And, in Birmingham, AL, a WBIQ SciGirls camp participant noted, “No one in my family has ever gone to college. I am going to be the first one. I want to be a doctor, a pediatrician. I never knew a doctor was a scientist. Now I can tell people, I’m going to be a doctor and a scientist!”

Impact:

To date, SciGirls has trained over 100 educators and community leaders and reached over 5000 girls in grades 3 through 8. In 25 communities across the country, SciGirls is building a foundation that will continue to engage girls in STEM for years to come. SciGirls partnerships have included: Carnegie Science Center’s Girls Math & Science Partnership in Pittsburgh, PA; The Science Center of Southern Illinois and WSIU in Carbondale, IL; The Tallahassee Museum of History & Natural Science and WFSU in Tallahassee, FL; New York Hall of Science in Queens, NY; KSYS in Medford, OR in partnership with Southern Oregon University’s AWSEM program, the Oregon Institute of Technology, and the American Association of University Women; WUNC in Research Triangle Park, NC in partnership with the North Carolina Mathematics and Science Education Network; WBIQ in Birmingham, AL in partnership with YMCA Camp Cosby and Girls Incorporated of Central Alabama; and Arizona Science Center in Phoenix, AZ.

Lessons:

One of the strengths of the SciGirls program design is that it offers informal educators content, training, and funding, but allows grantees to tailor their programs to the needs of their communities. In addition, SciGirls encourages partnerships. These collaborations have made it possible for some communities to sustain their programming efforts, even when SciGirls funding was no longer available.