

Project: National Girls Collaborative Project
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Project Website: <http://www.ngcproject.org>

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Project Categories: Programs, Staff/Professional Development, Infrastructure, Evaluation and Assessment

How to Reach Primary Target: We provide opportunities for informal educators to network with each other and professionals in K-12, higher education and industry through in-person events and online tools and offer mini-grants to encourage collaboration. In addition, we disseminate resources and research-based strategies to help strengthen capacity of informal educators and their organizations.

How to Reach Secondary Target: We provide opportunities for K-12 teachers to network with each other and professionals in informal education, higher education and industry through in-person events and online tools and offer mini-grants to encourage collaboration. In addition, we disseminate resources and research-based strategies to help strengthen capacity of K-12 teachers and their schools.

General Demographics: Female, K-12

Project Dates: 8/1/2006 - 7/31/2011

Funders: National Science Foundation
4201 Wilson Blvd
Arlington, VA 22230
<http://www.nsf.gov>

Evaluation and Field Testing

Evaluators: Evaluation & Research Associates
<http://www.pugetsoundcenter.org/Evaluation/index.html>

Evaluation Strategy: The NGCP evaluation team will conduct evaluation activities designed to look at the effectiveness of the implementation of the NGCP model on two levels: the national level and the regional level. Review of quarterly reports, annual surveys, Mini-Grant reports, event surveys and feedback, as well as site observations will be used to measure

project impact and inform formative evaluation activities. Questions guiding the NGCP evaluation are as follows: National Collaboration Evaluation Questions To what extent are regional collaboratives implementing the NGCP model? To what extent is training from the national level effective in helping regional collaboratives successfully implement the NGCP model? Regional Collaboration Evaluation Questions To what extent does implementation of the NGCP model impact collaboration between STEM programs and/or other organizations? To what extent are individual STEM programs affected by access to shared resources of the NGCP? How are individual STEM programs strengthened by an infusion of research-based strategies in informal education and evaluation and assessment?

Project Descriptions

The National Girls Collaborative Project (NGCP), funded by the National Science Foundation, aims to advance the agenda of gender equity in Science, Technology, Engineering and Mathematics (STEM). There is a startling lack of women in STEM professions, beginning as early as eighth grade when twice as many boys than girls show an interest in STEM careers (Commission on the Advancement of Women and Minorities in Science, Engineering, and Technology Development, 2005) and continuing to college, where women receive only 21% of Bachelor's degrees awarded in engineering, 27% in computer sciences, and 43% in physical sciences (National Science Board, 2006). NGCP is designed to bring organizations together to compare needs and resources, share information and to plan strategically to expand STEM-related opportunities for girls. Collaboration, as an interactive process, enables professionals across projects and communities to generate and carry out creative solutions and strategies that maximize benefit beyond that which one project or community could accomplish alone. Many coalitions and collaborative projects have achieved these types of outcomes when addressing complex societal issues (Jackson & Clark, 1996). Research suggests that coalition building assists in carrying out the educational plan: broadening the development of new audiences, reporting the results of member activities through media, and improving the educator's capacity for providing information to citizens, interest groups, and policy-makers. NGCP brings together organizations throughout the United States that are committed to informing and encouraging girls to pursue careers in STEM. The NGCP model was first piloted as the Northwest Girls Collaborative Project in Washington and Oregon and is currently in its second replication as the National Girls Collaborative Project. Ten regional collaboratives have been established as part of NGCP, facilitating collaboration between girl-serving STEM organizations, K-12, higher education, professional organizations, business, and industry. The current replication extends the model by utilizing the leadership and

Summary:

expertise of additional partners, Assessing Women and Men in Engineering (AWE), and the Educational Development Center (EDC), to disseminate research-based strategies to further advance the work of existing and evolving girl-serving projects and also to provide a forum to share results among practitioners and researchers. The goals of NGCP are to: 1. Maximize access to shared resources within projects and with public and private sector organizations and institutions interested in expanding girls' participation in STEM. 2. Strengthen capacity of existing and evolving projects by sharing best practice research and program models, outcomes and products. 3. Use the leverage of a network or collaboration of individual girl-serving STEM programs to create the tipping point for gender equity in STEM. The model implements the following design elements that bring the players together into a collaborative network.

1. Implementation of Collaborative Model: Train and mentor regional participants in how to create STEM-related collaborations and assist these collaborative networks in creating action plans which utilize research-based strategies in the areas of informal learning and evaluation and assessment.
2. Dissemination and Outreach: In partnership with regional and professional organizations, document and promote coordination and collaboration among girl-serving STEM programs throughout the United States and Puerto Rico by implementing an on-going communication system linking these organizations.
3. Collaboration Support: Offer mini-grants to girl-serving STEM-focused programs as an incentive to collaborate and to assist in informal learning and assessment and evaluation activities and projects.
4. Research Evaluation: Conduct evaluation of the NGCP to determine effectiveness of collaboration and the impact of collaboration and implementation of STEM research-based promising practices at national, regional, and local levels. The combination of these key players and design elements produces a model that addresses the need to reduce isolation and increase collaboration by bringing people together in person and online, providing professional development and incentives (mini-grants) for collaboration, providing and creating an online 'community' for those doing this work, and connecting girl-serving organizations with each other, education and business to have a greater impact on services and possibly policy ('a bigger voice').

NGCP continues to develop additional regional collaboratives, building on the results and lessons learned from previous iterations of the project. Gladwell (2000) describes the tipping point concept as the point at which small, targeted strategies or activities that happen unsystematically become widespread, causing a cultural shift that drives systemic and inherent change. The key is knowing how to apply the appropriate leverage and influence to make a bigger difference. A goal of the NGCP is to use the leverage of a collaboration of girl-serving STEM programs to create the tipping point for gender equity in

STEM. Although a lofty goal, the NGCP collaborative model has shown to be a promising avenue for this type of significant change to occur.

Impact:

NGCP offers in-person and online opportunities for networking as well as mini-grants to encourage collaborative projects. The foundation of NGCP is the Program Directory, an online searchable database that lists organizations and programs that focus on motivating girls to pursue careers in STEM. The purpose of this Directory is to help organizations and individuals network, share resources, and collaborate on STEM-related projects for girls. The Directory contains program descriptions, resources available within each organization, program and/or organization needs, and contact information. To date, 110 mini-grants have been awarded to over 200 organizations, totaling \$100,000. Not only do mini-grant recipients directly benefit from the additional funds, but mini-grant evaluations show that the majority of these collaborations continue after the life of the mini-grant project. Mini-grant recipients also report being able to provide programming to girls in STEM through the collaborative mini-grant projects that they would not have been able to provide on their own, resulting in an increase in opportunities for girls to participate in STEM projects across the country. NGCP also works to strengthen capacity of existing and evolving girl-serving STEM projects by disseminating research-based strategies in informal learning and evaluation and assessment at in-person collaborative events and via webcasts and online resource collection. These methods present current research coupled with programmatic examples to better inform practitioners of both the research that is available and how it can be implemented to better serve girls in STEM.