

Great Science for Girls



Great Science for Girls, a five-year initiative of the Educational Equity Center at AED, with funding from the National Science Foundation.

Great Science for Girls: Extension Services for Gender Equity in Science through After-School Programs (GSG) works with intermediaries to build the capacity of after-school centers to deliver evidence-based programs that will broaden and sustain girls' interest and persistent in STEM. Intermediaries are organizations that provide training and technical assistance to networks of afterschool centers in their regions.

In This Issue

- Program Highlight
- News from the field
- Did You Know?
- Research Round-Up
- Resources

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HOLD THE DATES

MARCH 31, 2009

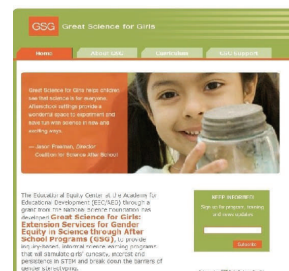
GSG Webinar. Evidence-Based Curriculum from 1—2 p.m. (EST). Hear from the developers of curriculum shown to have positive impact on girls' engagement in science.

MAY 19, 2009

A "virtual" reunion for all GSG participants from 12—2 p.m. (EST). Tune in to hear reports from GSG program implementers across the country and to share your ideas and best practices.

NEW AND IMPROVED WEBSITE!

We've changed the design, simplified the navigation, and added a wide range of resources and research to assist in discussions with funders, community members, and other stakeholders regarding girls and science. The new site includes downloadable activities from the GSG evidence-based curriculum. Check it all out at www.edequity.org/gsg.



PROGRAM HIGHLIGHT

GSG Afterschool Programs Engage Girls' Interest in STEM

Great Science for Girls (GSG) afterschool programs across the country are creating positive attitudes about girls and science. In its first two years, GSG reached more than 1,000 girls (and over 900 boys) with evidence-based programming that increases positive attitudes on the part of

girls and boys, and reduces stereotyped images of who can do science. Girls who participated in GSG came away with a new interest in science as an academic subject and potential career. Post-program survey outcomes reveal that 83.9% of student participants believe that “both boys and girls can grow up to be scientists.” Also, even though they may not grow up to be scientists, students agreed that they expect “to use science in my future work and other parts of my life” and that “scientific work affects the future of the world.”

NEWS FROM THE FIELD

THE FIRST COHORT

Working through a network of intermediaries (organizations that provide training and technical assistance to afterschool programs in their region), GSG has provided professional development to more than 100 afterschool programs nationwide. The following reports are from the first cohort of GSG intermediaries, and the quotes are from afterschool staff that have attended training and implemented the program.

Alternatives, Hampton, Virginia

“Opens my mind up about science...I can learn things I don’t know and it refreshes my mind on the things I forgot.”

Alternatives Inc. has continued and refined their GSG program based on lessons learned from the first year. They are now using the After-School Science PLUS curriculum, and are working with high school students that Alternatives trains as part of their own service learning program. GSG has been implemented in four afterschool programs in Hampton with a Biology/Environmental theme. In 2009, they will be doing the same in four afterschool centers in Hampton’s sister city, Newport News, but with a Chemistry theme.

MCCOY, Indianapolis, Indiana

“I heard different ‘Ahas’ from both boys and girls. The boys said, ‘I didn’t know that!’ and the girls said, ‘Wow, I can do that!’ ”

MCCOY has conducted training in gender equity and the Wonderwise curriculum for 11 afterschool centers. The curriculum was implemented in a variety of summer programs through the Boys and Girls Clubs, the Kaleidoscope Youth Center and At Your School Child Services. MCCOY is currently reaching out to new programs for 2009.

The Consultation Center, Connecticut state-wide

“Overall I thought the program was great. The students worked cooperatively and the activities were engaging and meaningful. I learned a lot, too!”

The Consultation Center is employing a number of strategies to implement Great Science for Girls throughout the state of Connecticut. They are in the process of beginning a collaboration with The National Girls Collaborative and the AAUW, and are gearing up for fundraising. A representative has attended training on After-School Science PLUS and Wonderwise held at TASC in New York City and then turn-keyed the training for sites in Connecticut.

TASC, New York, NY

“The materials and activities correlated with the school’s science curriculum, providing opportunities for students to prepare for science assessment.”

The After School Corporation (TASC) has expanded GSG to 48 sites using After-School Science PLUS and Wonderwise. They will be adding 20 new sites that will use TechBridge in 2009 with middle school girls.

The DC Children and Youth Investment Corporation, Washington, DC

“Practical hands-on activities related everyday things to science.”

The DC Children and Youth Investment Corporation has been using Girls at the Center, integrated with other science-related programming, at the following sites: Kid-Power-DC, City-Gate, Smithsonian Anacostia Science on the Go, Alcanzando Metas Foundation, E.L. Haynes Charter School and Perry School Community Services Center.

THE SECOND COHORT

The following intermediaries joined the GSG national initiative in 2008. Professional Development Institutes were held at each location, allowing for greater local participation.

The After-School Institute (TASI), Baltimore, Maryland

www.afterschoolinstitute.org

Held in June 2008, the Professional Development Institute was attended by 17 program administrators and afterschool staff from eight programs. Following the Institute, TASI conducted its own training for After-School Science PLUS. TASI holds monthly GSG meetings, which are integrated into their regular monthly meeting schedule.



Community Network for Youth Development in San Francisco, California

www.cnyd.org

The Professional Development Institute was held in October 2008 attended by site coordinators from a total of eight West Contra Costa and San Francisco afterschool programs. In California, afterschool programs are mandated by the state, and in the San Francisco school district, that program is called Excel. Each afterschool center is operated in partnership with a local CBO, representatives of which attend monthly meetings with a school district coordinator. AS+ training was conducted at an Excel meeting on October 31, 2008. In addition to the original eight centers, five more are now coming on board with the GSG program.



Chicago Area Project, Chicago, Illinois

www.chicagoareaproject.org

The Professional Development Institute was held in August 2008 attended by representatives of seven afterschool programs and the Adler Planetarium, which is

interested in partnering with local GSG activities. An additional 10 centers attended a Chicago Area Project workshop in November. The upshot is that one center began implementing in fall 2008, a second started in December 2008; two started in January 2009; and eight plan to start up sometime between January and March 2009. One that started in the fall with 28 girls and boys (S.C.C Girl Scouts/The Well) hosted a Robotic Science Fair in December.



DID YOU KNOW?

- Only 25% of surveyed Kansas/Missouri parents think their children should study more math and science?

There is growing consensus among the nation's business, government and higher education leaders that unless schools do more to train and nurture a whole new generation of young Americans with strong skills in math, science and technology, U.S. leadership in the world economy is at risk. However, Public Agenda's report, *Important, But Not for Me*, concludes that Kansas and Missouri parents and students don't agree with each other about this. This study finds just 25% of Kansas/Missouri parents think their children should be studying more math and science; 70% think things "are fine as they are now." The report concludes that while students do understand the need for strong math and science backgrounds, what motivates students to take more advanced math and science courses is an understanding of its relationship to concrete college and career opportunities.

Kadlec, A. & Friedman, W. with Ott, A. (2007). *Important, But Not for Me: Parents and Students in Kansas and Missouri Talk about Math, Science and Technology Education*. Washington, DC: Public Agenda. http://www.publicagenda.org/files/pdf/important_but_not_for_me.pdf

RESEARCH ROUND-UP

Charting the Benefits of High-Quality After-School Program Experiences

A two-year study, conducted by researchers at the University of California at Irvine, the University of Wisconsin at Madison and Policy Studies Associates, Inc, found that both elementary and middle graders who participate in adult supervised and high quality, structured afterschool experiences (1) had more positive work habits, (2) were more persistent in completing tasks, (3) performed better academically, (4) had better social skills in relating to their peers, and (5) were less aggressive with their peers.

Elementary and middle-grade peers who did not consistently participate in adult supervised and high quality, structured afterschool experiences tended to gravitate to more risk-taking activities such as hanging out with friends, misbehaving, and, for the older group, experimenting with drug use.

Reisner, E., Lowe Vandall, D., Pechman, E., Pierce, K., Brown, B., and Bolt, D. (2007). *Charting the Benefits of High-Quality After-School Program Experiences Evidence from New Research on*

Improving After-School Opportunities for Disadvantage Youth. Washington, DC: Policy Studies Associates, Inc.

<http://www.statewideafterschoolnetworks.net/dat/promisingprograms1.pdf>

Issues and Opportunities in Out-of-School Time Evaluation

The latest “Issues and Opportunities in Out-of-School Time Evaluation” research brief from Harvard Family Research Project draws on seminal research and evaluation studies to address two primary questions: (a) Does participation in afterschool programs make a difference, and, if so (b) what conditions appear to be necessary to achieve positive results? The 12-page brief concludes with a set of questions to spur conversation about the evolving role of afterschool in efforts to expand time and opportunities for children and youth in the 21st century.

In addition to the full research brief, Harvard Family Research Project offers two valuable online-only resources:

EXECUTIVE SUMMARY: These two fully designed pages sum up the content of the complete research review in an easily digestible form.

RESEARCH COMPANION: This comprehensive document provides in-depth information about the many studies and evaluations cited in the full report.

You can download a copy of the research brief and access the supplementary resources at the link below: <http://www.gse.harvard.edu/hfrp/projects/afterschool/resources/issuebrief10/>

Learning Science in Informal Environments: Places, People, and Pursuits

This highly-anticipated report from the (U.S.) National Research Council (NRC) reveals that “tens of millions of Americans learn about science in informal ways - by visiting museums and aquariums, attending after-school programs, pursuing personal hobbies, and watching TV documentaries, for example. There is abundant evidence that these programs and settings, and even everyday experiences such as a walk in the park, contribute to people's knowledge and interest in science.” The report also points to evidence that participation in informal science learning (like volunteering in the collection of scientific data) can promote informed civic engagement on science-related issues such as local environmental concerns.

For an overview of the report, which was sponsored by the National Science Foundation, and a link to read it in its entirety, please visit:

<http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12190>

RESOURCES

The Girl-Friendly Environmental Assessment

http://www.edequity.org/gsg/files/Girl_Friendly_checklist_2.pdf

This new tool was adapted by Great Science for Girls to help agencies assess their efforts toward providing a gender equitable and “girl-friendly” environment. We think this tool can help guide discussion among staff on the characteristics of a girl-friendly environment. It can also be

used as a program planning tool, from which priorities and areas in need of additional resources can be identified.

National Girls Collaborative (NGCP)

www.pugetsoundcenter.org/ngcp

The NGCP creates collaborations among girl-serving STEM organizations across the United States and Puerto Rico. Their quarterly newsletter and informative website is filled with resources, a description of their collaborative model, and links to NSCP collaborations. Check the website to see if there is one near you.

Coalition for Science After School (CSAS)

www.scienceafterschool.org

CSAS is a strategic alliance among individuals and organizations from STEM education, youth development, and out-of-school-time programs. Their website contains a wealth of information about the importance of doing science after school, updated resources, and a searchable afterschool science data base.

National Institute for Women in the Trades, Technology and Science (IWITTS)

www.iwitts.org

IWITTS is a constant source of excellent training and resources about women and science.

WAMC Radio Series on the Role of Women in Science and Engineering Now Available Online

WAMC Northeast Public Radio is pleased to announce that the radio series, *The Sounds of Progress: The Changing Role of Girls and Women in Science and Engineering*, is now available for listening through WAMC's Women in Science website. Supported by the National Science Foundation, *The Sounds of Progress* radio series sheds light on new gender-based research findings, and tells the stories of real-life role models from the past. To listen to *The Sounds of Progress*, visit WAMC's Women in Science website, www.womeninscience.org, where you can access streaming audio, download a series pod cast, or request a free CD-set.

For more information, contact:

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