Welcome to the National Girls Collaborative Project
National Webinar
The Computer Science Outreach Program
Evaluation Network: Exemplary Practices and Lessons Learned

December 4, 2017

Photo courtesy of LA Makerspace
Agenda

- NGCP Overview
- Message from Google
- CS OPEN Overview
- Exemplary Practices and Lessons Learned
- Questions
- Call to Action
- Closing

Photo courtesy of TechGirlz
NGCP Vision

The National Girls Collaborative Project (NGCP) brings together organizations that are committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).

Photo courtesy of DIY Girls
NGCP Goals

1. Maximize access to shared resources within organizations interested in engaging girls in STEM.

2. Strengthen the capacity of programs by sharing exemplary practice research and program models.

3. Use the leverage of a network to achieve gender equity in STEM.

Photo courtesy of LA Makerspace
National Network of Collaborative Teams
Our Mission: Build an evaluation culture within Google and throughout the CS education community through resource development, training, and funding.

To achieve our mission we...

- **Elevate the quality and usefulness of evaluation at Google**
  Work with individual teams across the company to develop and implement high quality evaluation.

- **Promote evaluation at Google**
  Encourage teams across the company to conduct evaluations to improve programs and inform decisions.

- **Inform the field**
  Share evaluation resources with CS education leaders and others to help them improve and grow their programs.

- **Make evaluation tools accessible**
  Supporting the development of tools and systems for identifying, curating, and sharing key CS research and resources.
Our Mission
Out-of-school organizations face barriers to program evaluation such as staff knowledge, skills, tools, and resources. CS Outreach Program Evaluation Network (CS OPEN) was started in 2015 to build the evaluative capacity of nonprofits.

Our Work
A guided network of practice offering participants:
- Monthly community meetings with range of evaluation topics: logic modeling, qualitative analysis, instrumentation, data visualization.
- Individualized evaluation support/consultation.

Photo courtesy of Digital Girl, Inc.
Our Work (continued)
A guided network of practice offering participants:
- Access to evaluation tools.
- Opportunities to present at conferences and meetings (such as AEA 2016).
CS OPEN Participants
16 nonprofit and university-affiliated organizations offering out-of-school CS education opportunities

12 Cohort 1 organizations served 1,649 girls and women from kindergarten through undergrad.
4 Cohort 2 organizations serving an estimated 3,400 girls from elementary through high school.
Growing the CS OPEN Network

Cohort 1 participants are:
- Sharing best practices with Cohort 2.
- Honing evaluation methods and instruments.
- Building evaluation teams.
- Integrating evaluative practices into programs.
- Engaging more stakeholders.

Cohort 2 participants are currently completing evaluation studies and final reports.
Growing the CS OPEN Network

CS OPEN will continue our model of practice:
- Planning for Cohort 3 mini-grants in 2018 for evaluation capacity building (ECB).
- Enacting and evolving ECB strategies: community meetings, X-cohort collaboration, education, tools and resources, and consulting with evaluation specialist.
- Collective impact studies.

Photo courtesy of TechGirlz
CS OPEN Results for Cohort 1

“I have a better understanding of how valuable evaluation is. It was an outstanding experience to be able to develop and use new evaluation tools.”

- All completed evaluation studies utilized: surveys (92%), observations (67%), content assessments (42%), and interviews (42%).
- 5 organizations credited CS OPEN with making evaluation possible for their organizations.
- 6 organizations were able to expand the scope of their evaluation efforts with CS OPEN support.
- Participants gained evaluation knowledge and skills in a wide range of evaluative practices.
Most Cohort 1 participants/participant teams moved from “Beginner” or “No Experience” to “Intermediate” or “Expert” by the end of CS OPEN.
DIY ("Do-It-Yourself") Girls increases girls’ interest and success in technology, engineering, and making through engaging hands-on projects and solid mentor relationships.

We want girls to apply the tech skills they learn with us to projects they love, for a community they care about.
CS OPEN RESULTS & LESSONS LEARNED

EXCITING HIGHLIGHTS

● Over 95% of participants who completed the 10wk course expressed interest in continuing to learn coding.
● Girls who were interviewed expressed feeling an increased sense of confidence in the class, saying things like:
  ○ “I like how everyone speaks and we can hear their voices.”
  ○ “Leslie helped me, Marlynn helped me. I felt that when I got help and then when I saw my project work, I felt like I could do it.”
  ○ “I’m excited to show my parents what i’ve created.”
● It became clear that a sense of comfort and community was key to girls’ confidence levels. Most girls who stayed the entirety of the program had a close friend or group of friends keeping them motivated.
  ○ “I like how you support everyone. How we help each other.”
  ○ “It’s very family friendly.”
  ○ “My friends made me feel comfortable so they could help me when I didn’t get something.”
  ○ “My friends are here. My teachers help out.”
  ○ “I trust the teachers and everyone in the classroom.”

LESSONS LEARNED

● Boost recruitment efforts: Include girls in previous programs, be very clear about what will be covered in class
● Career connections: Add more exploration of CS careers to instruction & curriculum
● Retention: Create protocol for following up with girls who miss class
TechGirlz is a non-profit dedicated to helping middle school girls embrace the power of tech

Create and distribute lesson plans (TechShopz) on all different technology topics - for free

These can be taught, anytime and anywhere by anyone

Close to 10,000 girls taught in under 7 years
Success and Learnings
From our Project

CS Open Teachings
- Better understanding of goals of the survey
- Lead to better questions

Results
- Parental support is important to help girls in tech
- Middle Schools should be reviewing the gap between what tech classes they offer & what girls are interested in learning
  - Girls like technology
  - Girls will continue exploring tech without school programs

Actions
- Deeper research
- Creating more partnerships for post TechGirlz activities
LEARNING WITH LA MAKERSPACE

Executive Summary

We assist libraries to incorporate Making into their programming on a permanent basis.

- We offer both professional development and workshops for the public that are designed as further training opportunities.
- Our system is geared to not just train-the-trainers, but to help them continue to teach themselves, and to pass the knowledge along as part of a Culture of Making.
EVALUATION SUCCESSES AND LESSONS LEARNED

• Currently in the process of data collection.

• Successes:
  – Developed new pre- and post-training surveys for librarians, new observation tool for workshop observations, youth participant interview and exit tickets

• Lessons learned:
  – Evaluation takes much more time than expected
  – Have backup plan(s) for data collection!
Afterschool and Summer Enrichment Program (ASEP)

Primary goals of ASEP:

▪ To stimulate an interest in studies pertaining to STEM principles
▪ To inspire academic growth amongst our students

Minorities, and particularly women of color, are underrepresented in STEM fields, largely due to non-exposure to these disciplines during their early formulating years. It is our belief that for our youth to thrive in tomorrow’s society, our young girls must learn to design, create and confidently express themselves with digital technologies.
Successes and Lessons Learned

• We were able to develop many evaluation tools for each of our focus groups:
  – Students, Parents and Interns/Facilitators
• Through the webinars we learned about and experimented with several evaluation platforms
• Successfully surveyed 268 participants
• We learned how to implement the evaluation process as part of our program’s standard operation procedures
Questions?

Photo courtesy of Digital Girl, Inc.
Get Involved with NGCP

• Follow us on social media (@NGCProject)
• Attend local events and national webinars
• Join your local Collaborative leadership team
• Collaborate to serve more girls in STEM.

Photo courtesy of DIY Girls
Upcoming NGCP Webinar

National Mentoring Month in January
Day and Time TBD
http://ngcproject.org/events

Photo courtesy of LA Makerspace
Thank you for joining us!