



Discussion Log Making STEM Meaningful for Girls Webinar on May 6, 2020

Event Website: <https://ngcproject.org/making-stem-meaningful-for-girls>

Question 1: How do you learn about the interests and lived experiences of girls and how do you incorporate these insights into your programs? How do you account for differences among girls?

Katherine Weber: I always do a pre-survey to my events/projects with girls.

Timothy Fowler: Make time to connect with girls during other activities/times (ask about their day, their lives and listen to the answers)

Joanna Young: Extensive icebreaker activities; re-reading the girls' applications before the programs begin to jostle our memories on what each girl is like; asking lots of get-to-know you questions early in the program.

Jennifer Stancil: I am a big big believer in applications. I always used them with my middle school programs. A little self reflection for the girls too. In our case, we used these application to place them into groups and roles within the camp.

Jessica Neely: Get to know you or as suggested earlier ice breakers for the girls but also participating in those and not just letting it be a student led activity

Timothy Fowler: Do community building games/activities (icebreakers, name games, cooperative games) to create connection and comfort with each other

Jeff McConaughy: Pre-surveys are a good start. Also, icebreaker activities that tease out background/experiences... like pairing up for a few minutes and then introducing the other girl with some prompts for things to find out and include in the introduction.

William Fee: We talk to the girls as we move through the class as they work. In summer sessions and clubs, where we have them for multiple sessions, we can then adjust to try to take everyone's interests into account

Mary Fuller: Agree with Timothy Fowler - casual chats during down time (snack, etc)

Carol Davis: Carol Davis: I am an enrolled member of the Chippewa tribe. When we designed a program for our Native students, which included girls, we brought the university professors to the reservations to learn about our culture and heritage. In turn our students went to the universities to learn about the professors professions. This helped the working groups understand one another.

Laurinda Willard: Chances for students to share an independent project with a group - gives them time to share individually before collaborating and working on group projects.

Khadija Ally: I do a casual group talk where we all get to know each other. I ask specific questions and go around the room to have every get a chance to answer and share

Timothy Fowler: Do activities that allow for personal sharing: All About Me art pieces or multiple identity charts, people in my family, etc.

Jennifer Stancil: As a parent, I'm not deterred by having to answer questions about my child either. I have to fill out all the medical forms, etc. and am happy to answer something that gives the leaders a leg up in working with my daughter.

Cynthia Brez: small groupings, time to work together and brainstorm/talk, ice breakers

Devona McPhatter-Graham: Pre-surveys are a natural go to for us.

Ellie Marois: We like to keep our activities broad and leave room for lots of creativity and exploration/experimentation. That way each girl can make their own unique creation without feeling left out or left behind.

Jennie Mathur: Lots of community building activities

Angel Thomas: post surveys because my program is an event. girls have an opportunity to share their thoughts.

Katherine Weber: Staying in the dorm with the girls during our STEM camps. I got to know the girls in the program and my own students.

Joanna Young: Accounting for differences - lots of one-on-one time, to draw connections between findings and a girl's interests/lives

Cynthia Brez: building projects in small or partner work

Natasha Vitale: I usually find the speakers for my conferences through LinkedIn, by searching specific terms, or just through articles/posts from people in my network. I reach out to them and women are genuinely very excited to partake in such events as promoting women in STEM even if it's free

Adrienne Provenzano: provide "show and tell" opportunities during Zoom webinars

Pamela Grohman: I love all of these ideas. what is your normal length of time in your group time. I only have 40-45 minutes with each group of girls. Doesn't seem like much time when we are only together 2 times per month. any suggestions?

Question 2: Training and ongoing support is important to help staff support these SciGirls strategies (#1 Connecting STEM experiences to girls' lives and #5 Emphasizing how STEM is collaborative, social, and community-oriented). What are some specific ideas and strategies for how you have successfully supported staff in this work?

Eva from NCWIT: Be sure staff have opportunities to see collaborative STEM and can model it.

Jennie Mathur: For some of our STEM programs, we have created a community of support for staff implementing a particular program. This has worked really well for us, but has taken at least two years to get to the point where people will automatically go to their fellow facilitators for support.

Rita Karl: Learning about how to become more culturally responsive as an educator.

Jeff McConaughy: Opportunities to talk to past participants to hear about their experiences and what helped them to feel comfortable and engage.

Rita Karl: Using role models in person and through media.

Nancy Coddington: Carving out time for staff to discuss implementation of strategies is important

Eva from NCWIT: Good to have staff that are from same environment as the girls

Juan: Our local STEM Hub has been a wonderful source for connecting staff in organizations with relevant professional development resources.

Timothy Fowler: Do activities with grouping strategies when training staff, so you can model how it works AND they can experience how it feels

Tricia Berry (she/hers) - Texas Girls Collaborative Project: We have debrief time regularly throughout our programming to share insights and observations, redirect and revise programming as needed, etc. The regular check-ins help us adapt quickly.

Natasha Vitale: When I find an interesting article online, I always share it with my team and within my network so that we all begin to gain a common understanding about what can be done to promote girls in STEM.

Katie Callahan: The staff that I supervise (our floor staff for The Tech Interactive) attend a training specifically on Engaging girls/underrepresented in STEM. This is one of the key goals for The Tech Interactive.

Laurinda Willard: watching this webinar ;)

Carol Davis: Native science/culture is an important part of western science. Native ancestors were scientists.

Adrienne Provenzano: Share info on NGCP with others

William Fee: We specifically look for girl-oriented STEM trainings. In addition, we seek out things that are more cooperative. The Save the (snails, ferrets, etc) curriculums have been a great hit. Disaster sims bring girls and boys together. Engineering is also a big hit with the girls, especially when you apply it to life sciences

Timothy Fowler: It helps if the work environment is also collaborative and inclusive, if people get to do the process with coworkers so they can easily promote it with youth too
Laurinda Willard: Modeling behaviors with staff while training. Especially in our maker spaces, many volunteers want to jump in and help without allowing kids to struggle and problem solve.

Claudia Poglitsch: Structurally, our camp week is set up for girls to work in different group sizes. Sometimes as sub-group in a class, sometimes together as a dorm group, free activities with STEM games/puzzles where girls can work separately or in pairs.

Rita Karl: Carol - I really appreciate your comments .

Jill Johnson: One of our ice breakers on the first day of STEM camp is to have the girls in small groups, plan out a project. Such as planning a wedding, a concert, bringing a pet home from store, backyard activity with 10 friends

Question 3: In response to COVID-19, how are you re-imagining your programs and supporting girls with activities that connect to their lives and that are collaborative and community-oriented?

Adrienne Provenzano: Improving skills in online learning through webinars

Natasha Vitale: Our team is looking at doing virtual activities in lieu of a physical competition that we usually host at one of our participating schools.

Rita Karl: We at SciGirls are really interested in ways of working with girls in meaningful STEM online; training online is also something we know we will be doing more of.

Mary Fuller: We have implemented a virtual programming strategy - combination of Facebook Live, Zoom and Google Classroom.

Jill Johnson: This is a hard one for us in MN. We have some of our partners wanting to create STEM kits and having students pick them up at the school. Haven't gotten approval from the district yet.

Lauren Zuckerberg: I would like to increase our social media presence but I know our director is hesitant that it will add too much work for us once things are "back to normal".

Ellie Marois: I recently participated in a virtual conference that was converted from an in-person day-long workshop. Each participant recorded a video via Zoom explaining their STEM job and how girls could get into this field.

Claudia Poglitsch: Reaching out to our camper alumnae to congratulate on milestones - eg. HS graduation.

Nancy Coddington: connecting girls to citizen science projects - they can gather real data, input online and we can connect via Zoom along the process to share

Caitlin Nolby: working on setting up zoom calls with our college students from the local area who are in STEM programs - serving as role models and talking about their backgrounds, why they got into STEM - challenges, etc. and allow girls participating to ask questions in the virtual panel

Sharon Paterson: We have transitioned to offering multiple "virtual" experiences each week through platforms like zoom. We also have two programs where we will be sending out kits and doing an activity together over zoom

Devona McPhatter-Graham: We are attempting to create a "Masters Class" for Virtual STEM Activities with our students.

Cori Roton: I wouldn't say really collaborative at this time, however, I am teaching computational thinking and sequencing using activities they do in everyday lives at home.

Natasha Vitale: Our team is also looking at doing a social media campaign that would include short discussions with professional women in STEM, how they got into their field, what they do on a daily basis, etc. This will get the girls excited about pursuing a career in STEM.

Tricia Berry (she/hers) - Texas Girls Collaborative Project: Having our local STEM role models create videos to showcase their work and tell their STEM stories instead of just

relying on role model videos created more globally that may not connect as well with local students

Shelly Hollis: I have seen girls enjoy sharing a talent online with teachers or other students. I think the online platform has helped them overcome some shyness that they might experience in the classroom.

Jessica Neely: We are struggling to work without technology for some of our girls. We have been challenged with going towards no tech, low tech activities to help the learning process.

Maggie Warren: We are using this time to think of the family as a whole unit and how everyone can be learners and teachers, we are also thinking about encouraging STEM in non-traditional ways such as STEM at home and in the garden etc. We are doing this via youtube videos and we will be incorporating Zoom and other live events too

carmen Stanton: We have created lesson plans as well as videos of activities that they can do at home.

Jennie Mathur: Some girls have come up with community service projects that they can either do now, or plan to do when things open back up

Juan: We are conducting one-way virtual programming currently.

Juan: We are working to make our virtual programming into more interactive events.

Jennifer Stancil: I'm loving a weekly email a museum locally sends out, that focuses on one piece of art and then expands it to myriad activities. This at home learning prompt is so validating and could easily be used around one type of mentor or one video about a particular stem topic.

Carol Davis: Some American Indian reservations lack technology access for students.

William Fee: We've unfortunately had to cut back on our clubs and girl oriented classes, though it is on our radar to try to reactivate

Timothy Fowler: Moving PD online but keeping it live and face-to-face via cameras, breakout rooms help to give a small group experience