



**Chat Transcript for NGCP Webinar:  
Connecting Out of School Time (OST)  
Activities and STEM Identity**

April 27, 2021

Marisa Garcia: Welcome, everyone! Please introduce yourself in the chat and respond to the poll on your screen.

Marisa Garcia: I'm Marisa Garcia with NGCP. Joining from Seattle, WA!

Laura Jones--GEMS: Laura R Jones, GEMS

William Fee: William Fee, Lead Instructor, STEMlab at the State Library of Pennsylvania in Harrisburg, PA

Lillian Tegner: Hi, I'm Lily from the Alaska Afterschool Network!

Allee DeFronzo: Hi there, Allee DeFronzo, Supervisor of STEM Programs at Girls Inc. of Lynn in MA

Jakayla Robinson: Greeting, I'm Jakayla Robinson, STEM Outreach Vista working with OregonASK and Afterschool Alliance in Portland.

Amy Spiegel: Hello - Amy from University of Nebraska-Lincoln, SEPA project Worlds of Connections

Laura Dillon: Laura Dillon, Prof Emeritus @ Michigan State University, supervising undergrads in offering coding clubs to 6-12

Nyssa Buning: Nyssa Buning, Spark!Lab Network Manager at the Lemelson Center at the Smithsonian National Museum of American History

Krista Galloway: Hi - Krista Galloway from AYD Geek in Washington

Michele Darienzo: Hi, I'm Michele Darienzo from the Science Learning Center at Brookhaven National Lab in New York

Lesley Icenogle - Gateway to Science: Hi, Lesley Icenogle from Gateway to Science in Bismarck, ND

Linda Kekelis: Linda Kekelis, with STEM Next, joining from Oakland, CA

Beth St. Amand: Hi! Beth St. Amand from Oregon's STEM Beyond School program and OSU extension

Heather Roden: Heather Roden - Space Camp, Huntsville Alabama

Cheryl Juarez: Cheryl Lani Juarez, Miami, FL

Cheri Burch: Hi! I'm from AAUW Tech Trek NM.

Carlos R. Villa: Hey everyone, I'm from the National Magnet Lab in Tallahassee, FL.

Catherine Graves: NASA Glenn Research Center, Cleveland, OH. Informal STEM Engagement programs.

Emma Grahn: Hi Everyone! I'm Emma, the Spark!Lab Manager at the Lemelson Center for the Study of Invention and Innovation at the Smithsonian's National Museum of American History.

Tara Cox\_NGCP: <https://ngcproject.org/>

Jennifer: Jennifer Breslin - Futuristas- NY - Hello!

Sue: Hi - I'm from iSPACE in Cincinnati

Mike Kennedy: Hello! I'm from Northwestern University - Science in Society

Tara Cox\_NGCP: <https://theconnectory.org/>

Tara Cox\_NGCP: <https://theconnectory.org/>

Tara Cox\_NGCP: <https://www.fabfems.org/>

Tara Cox\_NGCP: <https://www.ifthenshecan.org/>

Tara Cox\_NGCP: <https://pweb.cfa.harvard.edu/research/topic/stem-education-research>

Heather Aguillon: Hello all! Heather Aguillon, Challenger learning Center, San Antonio

Marisa Garcia: Please use the chat to ask questions.

Sandra: Hello all. I am Sandra Frerichs with Click2Science <https://www.click2sciencepd.org/>

Melissa Edwards: Hello! I'm Melissa from the Museum of Flight in Seattle!

Michael Smith: Good afternoon. I am on the NGCP Champions Board and URM and Womens STEM advocate.

Linda Chen: Will you share the study and this deck?

Marisa Garcia: Hi Dr. Mike! good to 'see' you

Michael Smith: Hi Marisa! Same here!

Kata Lucas: We will be sharing the recording and slides, on the NGCP event page

Tara Cox\_NGCP:

[https://drive.google.com/file/d/11eGeihAT6Nqc5K9LlzEeADxO7nhI\\_bbp/view?usp=sharing](https://drive.google.com/file/d/11eGeihAT6Nqc5K9LlzEeADxO7nhI_bbp/view?usp=sharing)

Marisa Garcia: Above link is a PDF including the graphs, we recommend you download it to use the embedded hyperlinks

Carlos R. Villa: What's the link to the data set?

Michael Smith:

[https://drive.google.com/file/d/11eGeihAT6Nqc5K9LlzEeADxO7nhI\\_bbp/view?usp=sharing](https://drive.google.com/file/d/11eGeihAT6Nqc5K9LlzEeADxO7nhI_bbp/view?usp=sharing)

Marisa Garcia: Ask questions here in the chat. We will have time for Q&A

Linda Kekelis: There's a lot of diversity in Maker/DIY activities and programs. Can you talk about the specific elements within these activities and programs that may be leading to increased STEM identity?

Marisa Garcia: I wonder if it matters who the STEM professionals are. Do they share some identity elements with the youth?

Susan Sunbury: good question - we don't have that grain size about the activity - I see a more qualitative follow-up study to get at elements within successful programs

Linda Chen: How do you connect this data in a longitudinal way is possible to show whether exposure in K-4, then in 5-8 and then in 9-12 would result in higher STEM identify then just one period in their lives?

Sue: My deck is not the same as Chen's - is there an updated link?

Marisa Garcia: your page numbers will be different, but you can use the Index to navigate.

Marisa Garcia: the complete slide deck from this presentation will be shared after the webinar.

Krista Galloway: Any analysis of the different effects in middle school vs. high school? Trends there?

Linda Chen: The problem these days is that none of the electronic products can really be taken apart anymore for regulatory reasons.

Colleen Popson: It would be helpful to know which of these activities were transformational in terms of interest and which were more about that feedback loop that happened after interest was established.

Laura Dillon: Could someone re-enter the URL for the slide that Chen shared containing the links to the study results?

Bekka Nolan:

[https://drive.google.com/file/d/11eGeihAT6Nqc5K9LlzEeADxO7nhI\\_bbp/view?usp=sharing](https://drive.google.com/file/d/11eGeihAT6Nqc5K9LlzEeADxO7nhI_bbp/view?usp=sharing)

Bekka Nolan: Scroll to Page 12

Marisa Garcia: This is the past webinar with links to the other slide deck Chen is referencing:

<https://ngcproject.org/participation-in-structured-and-unstructured-out-of-school-time-ost-activities>

Bekka Nolan: oh oops misunderstood the question :)

Laura Dillon: Thanks!

Linda Chen: Thank you!

Sandra: Do you have recommendations for measuring impact on STEM interest and/or identity in STEM programs. For instance, we want to measure how participating in making activities impacts STEM interest, identity and self-efficacy. How can we do that?

Marisa Garcia: Colleen, for your question on STEM Interest, Sue and other CfA folks presented on this last year: <https://ngcproject.org/connecting-out-of-school-time-ost-activities-and-student-interest-in-stem>

Krista Galloway: Thank you!

Colleen Popson: Some of the activities sound like something they would be more likely to do if they were already interested

Linda Chen: Does your data also include discrepancies between # of female / male participants who are exposed to these STEM activities? These graphs don't show the amount of participation by each gender? It would be interesting to see which activity that has a good lift on STEM identity, for female, but low participation. today. The problem is usually the design of the activity /environment that is biased.

Colleen Popson: Thank you!

Michael Smith: It would be interesting to connect how engagement occurs. Is it self-directed, teacher/educator-directed or recommended, parent-directed, fellow STEM professional directed or recommended?

Sandra: Thank you. That is helpful.

Sandra: That is a great idea, Marisa!

Marisa Garcia: stay tuned for the report! these questions are great

Marisa Garcia: Webinar about Participation in STEM: <https://ngcproject.org/participation-in-structured-and-unstructured-out-of-school-time-ost-activities>

Sandra: Linda Chen, that is a great question. I am flipping back and forth now between the two slides decks to look at participation and compare it to the impacts in this deck. Very interesting.

Linda Chen: Very nice.

Kata Lucas: Survey: <https://ngc2018.typeform.com/to/b6YQzmqX>

Laura Dillon: Thank you --- great resources for us to mine!!

Chen Chen: [chen.chen@cfa.harvard.edu](mailto:chen.chen@cfa.harvard.edu)

Melissa Edwards: Thank you!

Caren C.: Thank you!

Chen Chen: thank you all

Michael Smith: Thank you all!

Krista Galloway: Thanks very much!

Susan Sunbury: [ssunbury@cfa.harvard.edu](mailto:ssunbury@cfa.harvard.edu)