



**NGCP Webinar Chat Transcript:  
Addressing STEM Stereotypes with Youth and Young Adults**  
October 13<sup>th</sup>, 2022

Andrea Tronson: Hello....Andrea from Roosevelt Park Zoo in Minot, North Dakota

Bo Yoo: Hello! I'm with the McKinney Public Library System, joining to see how to better incorporate STEM into our programs

alisonotoole: Hello Everyone, Alison O'Toole from Beyond School Bells in NE!

Wayne Capps - NC CAP (He/Him): Hey Everyone, Wayne here from the North Carolina Center for Afterschool Programs :)

Nancy Scales-Coddington (she/her): Please ask your questions here! We will share them with our speakers.

Annabel Carroll, Utah Valley University: Hi! Annabel, reference & instruction librarian at Utah Valley University. Also the faculty liaison for our college of sciences, looking for ways to support our female students.

Lauren Johnson (she/her), IGNITE Worldwide: Lauren Johnson in Olympia, WA from IGNITE Worldwide - we coordinate STEM events for girls, young women, nonbinary, agender, transgender, and genderqueer students to help engage underrepresented genders in STEM.

Nancy Scales-Coddington (she/her): You can find National Girls Collaborative resources on our website <https://ngcproject.org/>

Nancy Scales-Coddington (she/her): IF/Then Collection: <https://www.ifthenshecan.org/>

Nancy Scales-Coddington (she/her): Youth Advisory Board: <https://ngcproject.org/about/initiatives/youth-advisory-board>

Nancy Scales-Coddington (she/her): Fab Fems: <https://www.fabfems.org/>

Nancy Scales-Coddington (she/her): Webinars and Other Events: <https://ngcproject.org/events-announcements>

Nancy Scales-Coddington (she/her): Subscribe to NGCP monthly e-newsletter: <http://ow.ly/Zuds30qwpOK>

Karen Peterson: What are your experiences with STEM stereotypes?

Trisha Mick, IdahoPTV: Growing up I never knew STEM was for me as an American Indian young girl. I am actively working ensure youth I work with today feel like they belong and that STEM is for them!

Lis Dziminski | Nevada OSIT: As a young person, I noticed none of the scientist we studied about looked like me.

Annabel Carroll, Utah Valley University: Growing up in the 80s and 90s, there was a pervasive idea that you were "either" good at reading and writing or good at math and science - never both. It was taught as an absolute, where a lack of instant comprehension of math or science was seen as an indicator that you should be pushed into language arts.

Nancy Scales-Coddington (she/her): Love that you are a role model Trisha

Nancy Scales-Coddington (she/her): Agree Annabel

Karen Peterson: Thanks for sharing Trisha. Fostering belonging in STEM is so important!

Victoria Brainerd: One of the biggest stereotypes that has impacted me and I believe the girls that I serve is that people from low income and rural backgrounds aren't the type of person to go into STEM careers.

Amanda Strawhacker (she): +1 annabel! so true

Nancy Scales-Coddington (she/her): Lis, that is why role models are so important!

Liz Coker (she/her), Cade Museum: I teach a coding class at our museum and, so far, there have only been 3-4 girls in the class. They often start out quiet and retiring, so I spend a lot of time showing them that they can and should be there.

Trisha Mick, IdahoPTV: I was also weirdly taught to feel shame for my dad's career in floor covering and wood working because he didn't graduate from high school or attend college. But he has an incredibly STEM-focused mind. He can look at an object and see all the measurements, how to take it apart and fix it, or how to build something. So math-focused that I never knew or fully appreciated as a child.

Mick, IdahoPTV: @Annabel- Yes STEM is all about integrating all the subjects in school. It doesn't have to be an either or!

Wayne Capps - NC CAP (He/Him): As a fellow nerd... I'm so jealous that you met Stan Lee!! (just had to throw that out there, haha)

Karen Peterson: Trisha - great example of how STEM is everywhere!

Nancy Scales-Coddington (she/her): Liz - that is great you are showing girls they belong in coding STEM spaces

Lauren Johnson (she/her), IGNITE Worldwide: So important, Liz! It's not just about getting girls into STEM spaces, but helping them feel comfortable when they're there; normalizing their participation - among all genders!

Martina G. Efeyini, she/her: Yes, identity is a big one! I'm finding that in my teen focus groups with teens

Karen Peterson: @Martina, it would be great to hear some examples of what teens are talking about!

Patricia Sasson: In my trainings with afterschool staff--I am teaching them all to introduce role models that connect with their STEAM activities and to also acknowledge that not all STEAM jobs/careers/role models necessarily hv college degrees.

Karen Peterson: @Patricia - such a good distinction to make!

Trisha Mick, IdahoPTV: @Patricia- I love that you are encouraging them to look at role models that may not have college degrees. I think often we use those degrees as a barrier to access instead of a tool to support.

Patricia Sasson: I just found out last week that I was selected to be a workshop presenter at Beyond School Hours conference and will be presenting Engaging Girls in STEAM.

Karen Peterson: Patricia - that's a great conference!

Martina G. Efeyini, she/her: Congrats Patricia! 😊

Patricia Sasson: images of men--older and crazy hair!

Sarah Carter: so many chalkboards.

Martina G. Efeyini, she/her: and I recently read about the draw a scientist project that many students draw a white male in a lab coat as a image of a scientist and that identity ties into diversity equity and inclusion in a lot of areas

Nancy Scales-Coddington (she/her): Oh yes Martina - that is a powerful

Patricia Sasson: <https://www.calacademy.org/educators/lesson-plans/draw-a-scientist>

Nancy Scales-Coddington (she/her): The IF/THEN collection has role models you can share with your students. <https://www.ifthenshecan.org/>

Martina G. Efeyini, she/her: STEM is taught in such a narrow way and now with the introduction of STEM we have even more possibilities

Victoria Brainerd: The idea that the only thing you can do with a stem degree is go to grad school or become a researcher is such a problem. I am a fairly recent college grad and those were really the only two options that were presented to me by my professors.

Nancy Scales-Coddington (she/her): Get involved with STEPUPphysics here: <https://engage.aps.org/stepup/home>

Trisha Mick, IdahoPTV: 1 in 7- I really like that you distilled this statistic down to something that feels "doable" and not overwhelming.

Nancy Scales-Coddington (she/her): Have questions for Claudia? Ask them here.

Nancy Scales-Coddington (she/her): Using Circle Practice in the Classroom: <https://www.edutopia.org/article/using-circle-practice-classroom>

Trisha Mick, IdahoPTV: I would love to use this activity with my Early STEM working group- we have librarians, statewide organizations, preschool teachers, and childcare educators.

Nancy Scales-Coddington (she/her): @Trisha - it would start a great conversation

Trisha Mick, IdahoPTV: A question that I have for Claudia- You mentioned a goal is to get girls choose physics (and STEM tracks) in college but does StepUpPhysics work to combat the negative stereotypes in the workforce? My husband and I had a conversation recently where he said 50% of his graduation class (BS Civil Engineering) was women and that they were getting positions with the same starting wage as his male peers. I had to push back and tell him he should follow their career and I guaranteed that after 5 years, his female peers would be earning less, wouldn't be able to have promotional opportunities, or even in the field still.

Trisha Mick, IdahoPTV: (Sorry that was long!)

Claudia Fracchiolla (APS): @Trisha Thanks for sharing your experiences. Those are so similar to so many other first generation students. But I do love that you are role model and sharing your experiences makes it easier for new generations

Amanda Sullivan: Feel free to ask questions here!

Kristen Burnham: Do you have any recommendations of resources to provide STEM support to the neurodiverse community?

Nancy Scales-Coddington (she/her): How can we help build STEM identity in middle/high schools when they feel they don't belong in physics?

Alison O'Toole - Beyond School Bells: Also have to think about whether those women are being treated the same once they are hired. After presenting at a Women in STEM luncheon, several women came up to me after describing their negative experiences on the job - including an African American woman who left her job because of unequal treatment.

Martina G. Efeyini, she/her: That's a good point Trisha! Sterotypes are really making an impact. When I talked to teens they said they never saw people in STEM that looked like them, also when it comes to careers they hear mainly about medicine, law and science is not often there. Having more conversations at an early age like middle school is imperative

Martina G. Efeyini, she/her: +1 Alison!

Trisha Mick, IdahoPTV: Ooh, @Kristen, I like your question about supporting neurodiverse community- and anyone with a learning disability or disorder.

Patricia Sasson: <http://www.scigirlsconnect.org/wp-content/uploads/2019/06/SciGirls-Strategies-One-Page.pdf>

Karen Peterson: Thanks for sharing SciGirls @Patricia!

Caitlin Duke, IGNITE Worldwide | (she/her): IGNITE Worldwide conducts free events, including virtual, for middle and high school students (and K-postsecondary) of underrepresented genders to inspire them in STEM! We introduce students to women, nonbinary, transgender, agender, and genderqueer professionals who share their stories--it's very powerful. We'd love to work with anyone interested!

Caitlin Duke, IGNITE Worldwide | (she/her): <https://www.igniteworldwide.org/teachers/>

Karen Peterson: Caitlin - thanks for sharing. We welcome this sort of sharing in the chat! Thank you!

Liz Coker (she/her), Cade Museum: To go along with making girls comfortable in STEM spaces, we're talking a lot about building up girls in those spaces, but what about counteracting negativity from peers? I've had boys in my programs say things to girls about how STEM isn't for them or wouldn't they like to do something else, etc.

Patricia Sasson: Documentary: Not the Science Type <https://youtu.be/AgHloyZjMCI>

Martina G. Efeyini, she/her: I would love to sign up for that Caitlin - finding safe spaces where girls can talk about these things and giving them the time to be a co-leader and/or designer of these spaces

Patricia Sasson: Boys need to see women role models just like girls so they see women are important in STEM/STEAM

Martina G. Efeyini, she/her: yes, especially boys of color

Caitlin Duke, IGNITE Worldwide | (she/her): @Martina - that would be wonderful! Check out our Teachers & Educators page and feel free to contact me directly - [caitlin@ignite-worldwide.org](mailto:caitlin@ignite-worldwide.org)

Caitlin Duke, IGNITE Worldwide | (she/her): <https://www.igniteworldwide.org/teachers/>

Martina G. Efeyini, she/her: and being affirmed at a young age so they can affirm for themselves - some may not get that at home

Amanda Sullivan: Yes, Martina! Absolutely

Amanda Sullivan: Yes, Patricia, totally agree! Boys need to see these role models too

Trisha Mick, IdahoPTV: And calling it out and addressing the stereotype when it happens. Pausing the lesson to dive into the ideas presented.

Claudia Fracchiolla (APS): Yes, Trisha absolutely!

Trisha Mick, IdahoPTV: I would love to continue this conversation with anyone interested. We can connect over LinkedIn and share the things we are doing and the questions we have! <https://www.linkedin.com/in/trishamick/>

Claudia Fracchiolla (APS): and asking why they think that way

Trisha Mick, IdahoPTV: Coming next week for sure- but would also like to bring some of these ideas and activities and share with my Early STEM group and the Idaho STEM Ecosystem.

Annabel Carroll, Utah Valley University: I'm doing collection development AKA buying books today and I will definitely be using this conversation to inform my choices - and would love suggestions for things to add to my collection on these topics!

Liz Coker (she/her), Cade Museum: I'm planning on coming next week. I also want to get your book, Amanda! I'm also going to be presenting these ideas to my Product Development team and talking about how we can implement them in our programming.

Nancy Scales-Coddington (she/her): Join us on Facebook: <https://www.facebook.com/ngcproject>

Martina G. Efeyini, she/her: I have a book guide on my website

Patricia Sasson: I love the shared resources--will be checking all the links out and returning next week. I am a mom with 3 boys and my 4th and youngest is a girl. I would love to eventually lead a group in Palm Beach County for girls and STEAM as part of my work

Nancy Scales-Coddington (she/her): Instagram: <https://www.instagram.com/ngcproject/>

Karen Peterson: Here is Amanda's book: <https://www.amazon.com/Breaking-STEM-Stereotype-Reaching-Childhood/dp/147584204X>

Mary Fuller: asking older girls what stereotypes they know about stem careers and addressing them honestly

Martina G. Efeyini, she/her: <https://thenextscientist.com/> and <https://thenextscientist.com/useful-books-2/>

Trisha Mick, IdahoPTV: I have a list of books-actually looking at doing an ongoing STEM bookclub for educators (starting with Amanda's book!)

Sarah Carter: Sharing with colleagues and will brainstorm ways to share with teachers in my state. I work at the state department of education.

Karen Peterson: Thanks everyone for sharing!

Patricia Sasson: Thank you for all the resources.

Karen Peterson: We should start a book club!!?

Nancy Scales-Coddington (she/her): Twitter: <https://twitter.com/ngcproject>

Martina G. Efeyini, she/her: Yes to a bookclub

Trisha Mick, IdahoPTV: I am FAN GIRLING HARD! :)

Claudia Fracchiolla (APS): My email: [fracchiolla@aps.org](mailto:fracchiolla@aps.org), STEP UP handler @STEPUPphysics, APS Public Engagement <https://www.aps.org/programs/outreach/index.cfm>

Nancy Scales-Coddington (she/her): NCGP Resource: "5 Ways to Counter STEM Stereotypes in Children & Youth" <https://www.ngcproject.org/resources/5-ways-counter-stem-stereotypes-children-and-youth>

Martina G. Efeyini, she/her: I'm have some book ideas I want to write so Amanda would love to chat

Nancy Scales-Coddington (she/her): Sign up for Upcoming Webinars: <https://ngcproject.org/events-announcements>

Claudia Fracchiolla (APS): <https://www.stemfromdance.org/>

Liz Coker (she/her), Cade Museum: I would love to join in a book club!

Claudia Fracchiolla (APS): Great idea @Liz!

Karen Peterson: Okay! We will do it! Stay tuned.

Nancy Scales-Coddington (she/her): Sign up for Upcoming Webinars: <https://ngcproject.org/events-announcements>

Nancy Scales-Coddington (she/her): Addressing STEM Stereotypes with Young Children  
Registration: <https://ngcproject.app.neoncrm.com/np/clients/ngcproject/event.jsp?event=702>

Nancy Scales-Coddington (she/her): STEM Stories Webinar Registration:  
<https://ngcproject.app.neoncrm.com/np/clients/ngcproject/event.jsp?event=708>

Nancy Scales-Coddington (she/her): Who Leads STEM? - #GirlsLeadSTEM Panel Tuesday  
Oct 18th 7pm, ET/ 6pm CT/ 4pm

PT Registration: <https://ngcproject.app.neoncrm.com/np/clients/ngcproject/event.jsp?event=711>

Claudia Fracchiolla (APS): My twitter handler @frakyC

Nancy Scales-Coddington (she/her): Post Survey Link:  
<https://forms.office.com/Pages/ResponsePage.aspx?id=tP9DY0cGHUGNH9c28obzsHmXn1LOnhxNtf7SYAFQjFZUNE1GQzEzUkJBUTdLUDY0VTZQSU1XWDZPTy4u>

Martina G. Efeyini, she/her: This lineup sounds great - I'm glad to have joined as it aligns with my work and my passions

Karen Peterson: So glad to meet you Martina!

Karen Peterson: Thanks to everyone!

Liz Coker (she/her), Cade Museum: Thank you so much everyone!

Claudia Fracchiolla (APS): Thank you Everyone!!!