Coordinating across settings, including OST programs, schools, and career opportunities, requires creating meaningful partnerships and brokering connections for youth (Ito et al., 2020). Program staff at Girls Inc. of Lynn coordinate across OST, schools, and college through its STEM programming that fosters long-term engagement for the girls it serves. Girls Inc. of Lynn was founded in the 1940s, and though its programming has changed over the years, as an organization it has always been about providing opportunities for girls in ways that aim to deliver “life-changing programs and experiences that equip girls to overcome serious barriers to grow up Strong, Smart, and Bold [through] research-based programming [that] is delivered by trained professionals who focus on the development of the whole girl, supporting, mentoring and guiding girls in an affirming, pro-girl environment” (Girls Inc., 2022). Through work that coordinates across OST and in-school settings, Girls Inc. of Lynn supports lifelong STEM as a lifelong learning pathway for girls that follows them from middle school through college and beyond. Girls Inc. of Lynn has a rich history of supporting STEM learning for girls. In our interview, Lena, the Director of Middle and High School Programs, described their STEM program from the 1980s (called Operation SMART - Science, Math, And Relevant Technologies) during which girls would engage in “hands-on activities,” “use Apple computers and play Oregon Trail,” and do things that were “messy and fun.” In partnership with a local children’s museum and museum of science, the goals of Operation SMART were to get and keep girls interested in STEM. As a point of history, Girls Inc. of Lynn was initially a childcare program for girls before adding their high school and middle school programming. Lena explained that their first middle school program was Eureka!, an intensive summer STEM program for girls. Lena explained that the motivations behind Eureka! were to target girls during middle school when they hit what she called the “societal messages” about what girls can and cannot do in relation to STEM such as the false notion that “girls aren’t good at math.” During Eureka!, the participating girls spend 6 weeks on a college campus and engage in bonding activities, attend STEM classes and lectures, and participate in athletics. Lena described Eureka as a “life-changing experience” for the girls who attend. Eventually, the success of the Eureka! program at Girls Inc. of Lynn translated to an in-school program called Odyssey. As many of the girls return to the program year after year, Lena explained how fulfilling it has been to see girls go through these different STEM programs in middle school and transition to high school, college, and sometimes come back as lead instructors or staff for Girls Inc. of Lynn programming.

To support the goals of Operation SMART and Eureka!, for the past 20 years, Girls Inc. of Lynn has also hosted a SMART Girl Summit, where girls engage in workshops and programming to learn about career opportunities in
STEM fields (e.g., engineering, biology, design, marine science). For the summit, about 120 girls come to Girls Inc. of Lynn during the school day to learn about STEM careers, and they also have an awards ceremony during which they recognize girls nominated by their teachers who show a keen interest and excitement for STEM learning. Lena explained that the goals of SMART Girl Summit are to increase girls’ awareness of potentially available STEM careers as well as to recognize girls who are interested in pursuing STEM.

**Background on the Director of Middle and High School Programs**

Lena is the Director of Middle and High School Programs and has worked at Girls Inc. of Lynn since 1987, when she took a part-time position and ended up “falling in love with the organization and its mission.” She “really believes in the work [Girls Inc. does].” Lena explained that part of her motivation for her work comes from the fact that she has a lot in common with the girls—she has immigrant parents and even attended the program with her older sister when it was previously named “Girls’ Club,” having great memories of her time there. As Lena described her background and how that brought her to her current position, she explained that “looking back on your life, you know there is a pattern there.” Lena is driven by the desire to positively impact and help society and hopefully help put the girls at Girls Inc. of Lynn on a path toward a successful future. She explained more about her work, background, and her specific passion for working with young girls in our interview: “I feel like I feel like there’s a lot of meaning in the work that I do, I think it’s really important, along with the gender equity piece of it. Having older brothers, you experience the double standards growing up…my father is from Italy…and so on my father’s side I’m first generation, and the way that affected me is like I’m reading about different cultures and realizing like ‘Oh, in their culture, they don’t celebrate the birth of a girl, they celebrate the birth of a boy and girls are just quietly born into the world.’ But also having two older brothers and knowing that they had so much more freedom to go out and do whatever they want to do where I wasn’t allowed to do all those things…”

Her background and experiences growing up motivated her to make more opportunities available to young girls. In our interview she connected her personal experience to that of the girls with whom she works. She explained this connection:

“As far as education, I definitely can relate to the girls because although [my parents] wanted me to go on to college and they wanted me to be successful, they didn’t know how…and so I was on my own. And so in the Lynn Public Schools, which I also attended, there’s a lot of students and there’s not a lot of guidance counselors. I think the ratio right now is 375 students for every guidance counselor so I remember trying to figure out what the steps were and having to take to take the SATs, and I had to do that all myself…and I feel the girls are in that same boat, their parents want them to go on, and they want a secure future for them. But they don’t know the steps, and that’s where we come in. We’re trying to work with you, let’s work with your parents.”

For Lena in her role, it’s not as much about instilling values of supporting successful futures for the girls – the families already hold those values. As Lena described, her role is about helping girls and their families navigate systems that are often confusing, opaque, and not designed with outsiders in mind.
Coordinating Across Settings to Understand STEM as a Helping Profession

Girls Inc. of Lynn takes the longview when coordinating across OST and school settings to support girls’ STEM interest and engagement. Lena explains that a big part of their efforts include getting girls internships and role models in STEM professions to mentor them and support connections to future STEM careers. The organization also works on building connections and trust with the families to support girls’ STEM interests. Though many of their internships now are at local museums, the YMCA, or at a law firm and not necessarily in STEM, Lena would like to see that change so they can more closely tailor the internships they offer to girls’ emerging STEM interests. As she explained, “[Lynn] isn’t Boston or Cambridge with a lot of biotech companies or technology-based companies.” For Lena, she thinks that the girls need really in-depth experiences and internships with STEM professionals “in order to really consider STEM [as a career path] seriously.” Lena explained that through their programming, they ultimately hope to frame STEM as a “helping profession” for the girls with whom they work. She explained how she envisioned aligning their interests with STEM careers:

“So we want them know about all those possibilities and also making sure they understand the connection between STEM as a helping profession, because as girls, a lot of times when you ask them, even when we asked them way back in the 80s until now you’ll ask them what would you like to be and they’ll say traditional things I want to be a teacher or a nurse, and those are wonderful professions, but what else is out there? And they want to help people, so we talked about well if you’re curing cancer or you have to figure out a way to make freshwater in different parts of the world, or I don’t know sustainable power or something on you’re going to make a difference you’re going to help people. So making that connection for them.”

By coordinating across different sites for STEM learning and engagement (OST, school, career), and aligning girls’ interests with STEM opportunities, Girls Inc. of Lynn aims to position STEM as a helping profession that centers the human aspects of the work (e.g., Cunningham & Lachapelle 2014; Peppler et al., 2021), as well as the relationships between the mentors at Girls Inc. and the girls.

How Girls Inc. Prepared for Coordinating Between in School and Out-of-school Settings to Cultivate Youths' STEM Interests

- Position STEM interest as a lifelong pursuit that opens a range of career opportunities
- Enlist teachers as partners to recognize girls who show an interest or enthusiasm for STEM
- Create programming to connect girls to women in STEM professions and provide internship and other career opportunities
About the Making Connections Project:
Fostering Connections and Pathways for Youth across STEM Learning Ecosystems

STEM Next and the Connected Learning Lab at UCI have partnered to support state and regional out of school networks as they develop and strengthen an ecological and connected approach to STEM learning. The case studies series represent real world examples that are part of a larger effort to develop and improve connection strategies that strengthen STEM learning ecosystems, centering the experiences, mobility, and futures of individual learners and their families across state and regional networks.

Each case study in this series takes a close look at a partner organization’s approach to one of the eight strategies for connecting: 1) A wraparound approach; 2) Coordinating between in school and out of school; 3) Giving back to one’s community; 4) Near peer or industry mentorship; 5) Translating youth interests in to STEM career opportunities; 6) Building relationships with families; 7) Curating online tools; or 8) Creating open portfolios. These case studies are not exhaustive; they are examples of coordinating and brokering that can be used to spark ideas and inspire growth.

For more information on the project and the strategies, visit https://stemnext.org/stem-pathways and connectedlearning.uci.edu/projects/making-connections/

References


