

ADAPTING AND EVOLVING AS YOU GO: AT THE YOUTH IMPLEMENTATION LEVEL



PRACTICE BRIEF 5A



Action Steps:

- » Roll out your programming in stages to allow for troubleshooting at a smaller scale.
- » Support learning facilitators to adjust their implementation in real-time.
- » Provide ways for learning facilitators, mentors, and other partners to share ongoing reflection throughout implementation.

Because of the nature of collaborative and iterative design, the project will undoubtedly move in directions that were not predicted. Keep true to your model, integrating Community STEM Partnerships (CSEPs)¹ to provide career and community experiences through youth project work, but leave space for new content and opportunities.



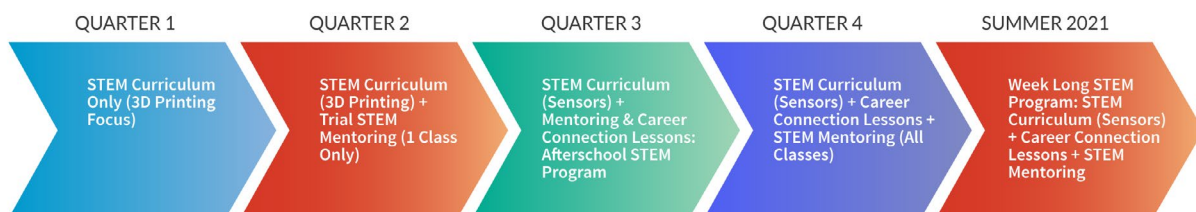
Strategies to Make it Happen:

Allow the program to evolve along the way

Roll out your programming in stages to work through the inevitable obstacles at a smaller scale.

- » Consider the scale of change you are implementing. For example, if teachers are instructing new curricula and learning new technology for your project, perhaps gaining confidence with these items is enough for the first roll-out — save the mentoring and community experiences for next time.
- » Learn what support mentors need and how youth like to interact by starting with just one group (one class, for example) before scaling the opportunity to your entire group. This will allow the teachers, mentors, and the project team to discover what works well and where more support is needed.
- » Iteratively refine and scale your project as you learn (see the timeline below for the STEMCC project roll-out during year one).
- » Establish strong communication practices between all partners. Depending on the number of youth engaged in your program, the coordination and scheduling can be quite a large endeavor. Communicate clearly and frequently to address changes that come up along the way. Use communication routines that are familiar to your partners.

Overview of how the STEMCC program evolved during Year 1



¹Community STEM education partnerships (CSEPs) are long-term collaborations between organizations and project participants that coordinate and leverage expertise and resources to improve STEM learning opportunities for youth.

Support learning facilitators to make adjustments in real-time

The program facilitators should be empowered to make adjustments based on youth interests and needs during implementation. They might need to adapt the curriculum to strengthen youth engagement, or to accommodate changes to the school calendar. They might want to integrate other lessons or activities within the STEM curriculum to attend to their overall scope and sequence. Be willing to support these types of adjustments as they come up. These changes allow for opportunities to evaluate the effectiveness of different implementation methods and for each teacher to match your project to their existing instructional routines, which increases the likelihood that they will continue to integrate your educational model long term (see the [STEMCC Model](#) for more information on our curriculum and practices).

As you evolve and move forward, plan strategies to recruit new partners to serve as mentors. STEM experts with an established interest in outreach and education will be obvious choices for partners. Still, if your program serves a sizable amount of youth, you might find that you have a significant need for mentors. Survey your parent and caregiver population for potential mentors. Ask existing partners to suggest others you might contact and look for opportunities to expand partnerships with entities your partners have worked with before. Individuals or businesses that have provided skilled labor in fields that connect to youth project work (e.g., construction, utilities, waste management, and other community services) could become new partners that expand youth knowledge of STEM careers in their community.

Build in opportunities for ongoing evaluation

Provide ways for learning facilitators, mentors, and other partners to share ongoing reflection and feedback throughout all stages of your project.

- » Invite learning facilitators and mentors to share feedback about implementation ideas; they might lead to some authentic connections.
- » Hold regular check-in meetings with learning facilitators to debrief successes and challenges and help keep everyone on track for your implementation timeline.
- » Act on the information you receive to ensure youth have a positive experience and reach out to youth who stop showing up without a communicated reason.
- » Collect feedback directly from youth using interviews, surveys, and exit tickets (quick reflections completed at the end of a lesson).
- » Survey mentors following their first interaction with youth to provide actionable information.
- » Be aware of introducing survey fatigue with your participants, especially with youth who may respond less enthusiastically if you survey them too frequently.
- » Build in time to revise activities with partners to integrate lessons learned as you move throughout the project.

**Tool: Mentor Reflection Survey**

Use the sample mentor survey to evaluate the mentor experience so that you can adapt the youth-mentor interactions as needed. Survey each mentor at least once, but potentially more than once. The mentor reflection survey is a Google form — make a copy and adapt to suite your project needs.



STEM Career Connections Spotlight:

The STEM Career Connections researchers worked closely with our partner (a summer camp provider) to design a one-week STEM camp offered at two different site locations during the summer of 2021. During the implementation period, the research team collected data about the program from a variety of sources, including: surveys, informal debriefs with teachers and site coordinators, teacher and youth interviews, and meetings with summer program staff. After the summer program wrapped up, the research team and summer program staff used the information obtained from these sources to structure a SWOT (strengths, weaknesses, opportunities, threats) analysis intended to inform planning for summer camp in 2022. Many of the identified strengths of the 2021 summer camp were continued the following summer. Likewise, weaknesses and threats were identified as areas for improvement, and opportunities were viewed as new ideas that could be tried out the following summer. The summer camp 2022 program hailed new successes, and new opportunities for growth, as a result of this evaluation.

Example comments from the Summer Camp 2021 SWOT that informed Summer Camp 2022 planning

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> Prioritizing the hands-on STEM experiences that used sensors Enrichment activities Use of LiveBinder for organizing resources for facilitators Working with STEM mentors from the local community Flexibility in implementation. 	<ul style="list-style-type: none"> Career activities should be more integrated with youth interests, mentors, and sensors. The project portion of the week wasn't structured enough for the instructors to support the youth in this type of open engagement. 	<ul style="list-style-type: none"> Integrate & stretch out the sensor curriculum across the other weeks. During service week, youth were out in the community, and during Social/Emotional week, they did a career focus - how could we integrate STEM and sensors work with these experiences? Youth are going out to meet STEM professionals in the community. 	<ul style="list-style-type: none"> Instructors reported that they would have liked more training, though they acknowledged that a balance between protecting their summertime and camp obligations made it tough to do more training.



Reflection Questions

- » What are the advantages and disadvantages of rolling out your programming in stages?
- » What strategies do you anticipate needing for good communication between teachers, facilitators, and mentors to address changes along the way?
- » At what point along your implementation timeline is evaluation necessary? What evaluation tools do you have in place or need to develop?
- » How can you use formal/informal meetings to receive feedback and plan for possible adaptations to your programming?



Next Steps

[Practice Brief #5b - Adapting and Evolving As You Go: At the Partnership Level](#)