



Translating Research into Practice

Co-Designing Research-Based Tools with Mentors and Program Leaders

Ta-yang Hsieh, Justin Roskopf, & Mike Foote

Translating research into practice for youth development out-of-school time (OST) programs is a dynamic, responsive, and skilled craft. The value of researchers and practitioners building off each other's wisdom in the service of youth is obvious; what is less often discussed is the fluid, collaborative, and often messy process of doing so.

This article showcases a co-design process of working with mentors and mentoring program leaders to translate youth development research into actionable tools. We first contextualize our work by describing the program context (the “Who”) and our co-design process (the “How”). Then, for each of three tools that came out of this co-design process (the “What”), we describe the research that guided its development and its transferable uses for youth development OST programs at large.

Who: The DREAM Program

The mission of DREAM (Directing through Recreation, Education, Adventure, and Mentoring; <https://www.dreamprogram.org/>) is to close the opportunity gap for children and teens through deep community collaboration and sustained mentoring relationships. Founded in Vermont's Upper Valley, DREAM now operates more than 45 sites in the Northeast and mid-Atlantic regions. Across its footprint, DREAM serves approximately 800 youth (ages 6–16), predominantly from low-income backgrounds. The core of DREAM's programming is “Village Mentoring,” which uses a flexible and dynamic group mentoring model in which youth are matched 1:1 with a college student mentor and have opportunities to meet as part of a mentoring community with other mentor–mentee dyads. Time

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is spent checking in one-on-one, as well as with team-oriented larger group activities. DREAM also offers afterschool enrichment and summer camps.

Through an AmeriCorps research and evaluation grant, DREAM partners with Search Institute, an applied research nonprofit organization, to improve program quality.

How: Co-Design with Mentors and Mentoring Program Leaders

We took a ground-up, improvement science-inspired approach to this program improvement effort.

Step 1: Focus groups and a survey to identify improvement areas and problems of practice. With the goal of improving DREAM's program quality, we started with a series of focus groups with selective mentors ($N=14$, who represent the various regions that DREAM

serves) to identify key improvement areas (see Figure 1). The focus group questions were intentionally broad, such as "What barriers get in the way of you doing your best work as a mentor?" and "If you could make one improvement to DREAM, what would it be?" Three main improvement areas were identified from the focus groups: (1) lack of clarity around the Village Mentoring model; (2) a need for developmentally targeted programming; and (3) inconsistency in the one-to-one mentoring quality.

Once these improvement areas were identified,

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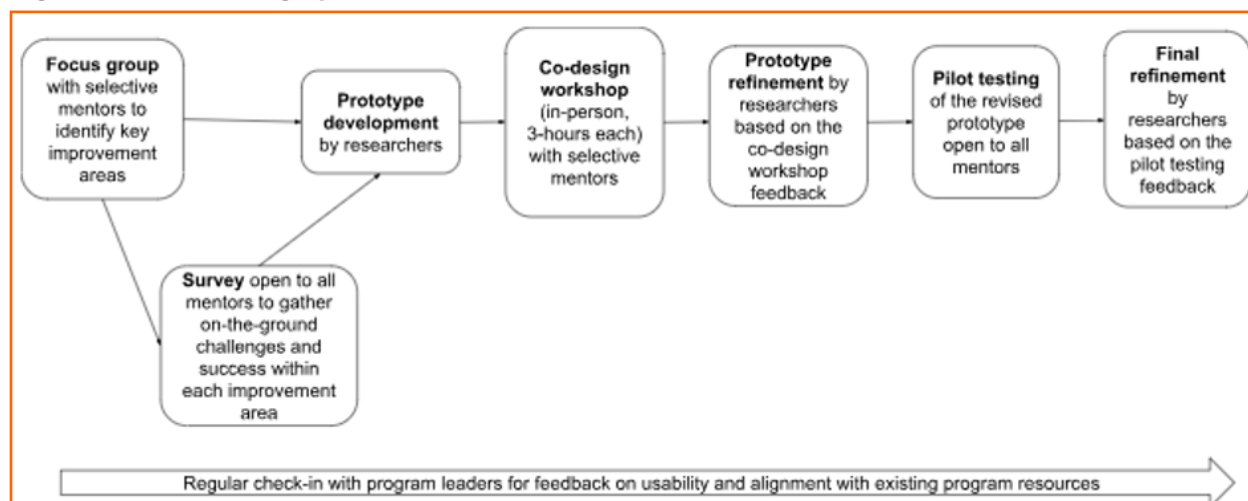
we invited *all* mentors to a survey. Responses to the survey ($N=51$) helped us further pinpoint specific *problems of practice* and potential solutions within each improvement area. For example, regarding the first improvement area, we learned through survey responses that because of DREAM's decentralized program model, each site approaches Village Mentoring in silos without clear top-down guidance or exchanges of best practices or lessons learned across sites. In other words, the problem of practice is not so much "What do we do?" but a lack of shared language to know "Are we doing this correctly?" As such, mentors were eager

for some structure (or rubric) for the Village Mentoring model so that they could plan intentionally, know where to improve, and share insights across sites. Overall, the survey helped narrow down three concrete problems of practice (see Table 1). In the survey, we also intentionally asked about

"what works," which helped ground our design and eventual tools in mentor voices from a strength-based perspective.

Step 2: Co-design workshops to gather feedback on the tool prototypes. Taking the results from the mentor focus groups and the survey, the researchers developed three tool prototypes, addressing each of the problems of practice. The development of each prototype started with summarizing a body of relevant research, highlighting promising strategies that emerged from the mentor focus groups and survey,

Figure 1. The co-design process



and then creating an activity for mentors based on the referenced research. Once developed, the prototypes were taken to a series of three co-design workshops, where mentors tried out the prototypes and gave extensive feedback. The smallest co-design workshop was attended by 4 mentors; the largest was attended by more than 10 mentors. The co-design workshops were highly hands-on and interactive, each three hours long with structured individual reflections, small group discussions, as well as large group share-outs to encourage a variety of feedback. Example discussion questions in the co-design workshops included “What about this tool would NOT work well for DREAM?” and “What structures/resources would be helpful in making sure mentors actually use this tool?” The co-design workshops yielded abundant feedback, which the researchers used to revise each of the prototypes.

Step 3: Pilot testing of the refined prototypes.

The revised prototypes then went through pilot testing, in which all mentors were invited to partake. Pilot testers were encouraged to try out the refined prototypes with their mentees and fellow mentors *during programming*, which gave us contextually valid feedback regarding actual implementation. Once the pilot testers ($N = 20$) tried out the refined prototypes, they were asked to complete a survey, which consisted largely of questions about implementation (e.g., “What adaptations did you make when you used this tool?”). The pilot testing feedback was used to make final refinements to the tools.

Throughout: Program leader buy-in and support. As shown in Figure 1, we had regular check-ins with the DREAM program leaders throughout this co-design process. During those check-ins, the program leaders provided high-level insights on the tools’ usability. Importantly, they also helped identify alignment with existing program resources, which ensured that we were not adding “yet another thing” to the mentors’ plates. The program leaders also played a critical role in recruiting mentors at various points for feedback.

What: Three Actionable Tools Grounded in Research for Mentoring and Youth Development Programs

Our co-design process led to the development of three research-based, actionable tools. Each tool is anchored in a body of youth development research and addresses a problem of practice identified from the mentor

focus groups and survey: lack of clarity around the mentoring model, a need for developmentally targeted programming, and inconsistency in the quality of the 1:1 mentoring (see Table 1). All tools are freely available online.

Tool 1: A program planning and debriefing template guided by research on high-quality youth development programs

The first improvement area calls for structure to DREAM’s Village Mentoring model so that mentors can plan intentionally, know where to improve, and share insights across sites. To address this need, we set out to create a program planning and debriefing template that lays out a high-level structure for programming without being prescriptive. In essence, our goal was to create a template that provides structure to help hold programming across DREAM’s various sites to the same, research-based standards, yet at the same time allows each site to apply such standards based on its unique program context.

Our template is grounded in research on high-quality youth development programs (e.g., National Academies of Sciences, Engineering, and Medicine, 2025). The template starts by introducing key pillars of high-quality youth development programs: physical and psychological safety; appropriate structure; supportive relationships; opportunities for skill-building; youth voice and choice; contribution, efficacy, and mattering; opportunities to belong; integration of community efforts; and culturally sustaining practices. To help mentors remember these pillars as shared vocabularies, each pillar is accompanied by an icon (e.g.,  for youth voice and choice) when they are referenced in the template. Then, the template goes over some promising practices (“tips”) for group mentoring that emerged from the mentor focus groups and survey. The rationale for including them is to show that both research and practical wisdom are valuable insights.

Next is the program planning section (see Figure 2). The left side of this section is a simple table for planning who does what at what time; the right side references relevant pillars of high-quality youth development programs in checklist style with concrete, practical examples. For example, during arrival, the template prompts mentors to think about the pillar of “physical and psychological safety” by asking specific questions such as “Are there multiple ways for youth

Table 1. Development of co-designed tools

Program Improvement Area	Problems of Practice	Research that Anchored Development	Co-Designed Tool
Lack of clarity around the Village Mentoring model	A need for shared languages to provide structure and consistency for Village Mentoring across sites	The Future of Youth Development: Building Systems and Strengthening Programs (National Academies of Sciences, Engineering, and Medicine, 2025)	Program planning and debriefing template: DREAM Village Mentoring Planner, https://drive.google.com/file/d/10cc7Hz_wD3Ft8xIMMlwbLRGmL1flkfHm/view?usp=sharing .
Need for developmentally targeted programming	Need for programming tailored for older youth (ages >13)	The Core Science of Adolescent Development (UCLA Center for the Developing Adolescent, 2026)	Identity flower: an activity that guides mentors in discussing the various facets of identities with their mentees: DREAM Guide for Engaging Older Youth, https://drive.google.com/file/d/1EdKM1s7fZeHwlar-eo5VXWA-StuGZg4Q/view?usp=sharing
Inconsistency in the quality of 1:1 mentoring	Need for easy-to-pick-up tools that foster mentoring relationships	The Developmental Relationships Framework (Search Institute, 2026)	DREAM Developmental Relationships conversation card deck, https://drive.google.com/file/d/13xUuk9VPpWNI1EpoEXpzoSWVupHNQbmz/view?usp=sharing

Figure 2. Section of the program planning template

Group mentoring <i>Opportunities/goals for skill-building: what do we want youth to walk away with today?</i> <i>Quality over quantity: matching activities with your goals is more impactful than trying to accomplish too many.</i> (consider small group design) ☐ practical life skills ☐ academic/study skills ☐ critical thinking skills ☐ artistic/creative expression ☐ identity development (consider larger group design) ☐ social/interpersonal skills ☐ communication skills ☐ cultural competency ☐ peer bonding ☐ collaboration/teamwork			Are the activities: ☐ chosen by youth, rather than by the mentors 🧑 ☐ allowing youth to engage in various ways (e.g., choose your adventure options) 🧑 ☐ challenging youth beyond their comfort zone, but not so much that it becomes frustrating 🧑 ☐ uplifting youths' identities and backgrounds ❤️ ☐ helping foster relationships between youths (e.g., healthy competitions) 🧑 ☐ suitable for different ages (if not, consider separating into small groups) 🧑												
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to feel at ease (e.g., conversations, music, low-sensory areas)?” and “Do check-ins go beyond surface level to address youth’s emotional needs?” As another example, for closing, the template prompts mentors to reflect, “Are youth motivated to come back (e.g., a genuine ‘see you next time’) for each and every youth?” (for the pillar of opportunities to belong) and “How would youth share their feedback?” (for the pillar of youth voice and choice). By the time that mentors fill out the planning template, they essentially have an agenda for their programming that clearly spells out who is doing what, when, and with what intentions.

Following the program planning section, a debriefing section (see Figure 3) starts by asking

mentors to quickly self-rate how they did on each pillar of high-quality youth development programs (a green light for “We did really well!”, a yellow light for “We did well, but some room for improvement, or a red light for “Did not go so well”). Each pillar is also accompanied with a debriefing question (e.g., “Were youth given exciting opportunities to give back or step up?” for the pillar of contribution, efficacy, and mattering). The debriefing template also encourages mentors to add topics that are salient for their specific site’s context. A strong reaction that came out of the co-design workshops was to make this debriefing section more actionable and concrete. As a result, we added a list of “what to KEEP/START doing” (impactful strategies) and “what to STOP doing”

Figure 3. Section of the program debriefing template

		Debrief questions
 Physical & psychological safety	  	What adjustments or accommodations did we make? Any interaction that we are concerned about (e.g., confrontational, awkward)?
 Appropriate structure	  	What about behavioral management worked well today? What did not work so well?
 Supportive relationships	  	How were we intentional about building inclusive mentor-youth and youth-youth relationships today?
 Opportunities for skill-building	  	In what ways did we leverage youths' existing skills and knowledge? How did we build upon that?
 Youth voice & choice	  	In what ways did we seek youth feedback today?
 Contribution, efficacy, mattering	  	In what ways were youth given exciting opportunities to give back or step up?
 Opportunities to belong	  	How was the overall vibe? Think about <i>each and every</i> youth, did anyone get left out?
 Integration of community efforts	  	How might the things we did today relate to youth's lives at home, in school, and in the community?
 Culturally sustaining practices	  	In what ways did we celebrate youths' identities and cultures today?
Add your own debriefing questions (<i>think about your site's unique needs & strengths</i>): (common examples: roles & responsibilities, significant observation for specific youth)		
	  	
	  	
	  	

(anti-examples) for each pillar of high-quality youth development programs.

Feedback from the co-design workshop and pilot testing suggested that mentors appreciated both the research-based structure and the room for adaptation that the template provides. As one mentor shared:

I really like that the planner provides a good structure but it's not too intense to have to follow. This makes it easy for the mentors to organize their team time and still be able to adapt to the group of mentees. I also like how it incorporates the nine key areas that strong programs should have and helps to see what exactly should be met during team time.

Tool 2: An “identity flower” activity guided by the science of adolescence

The second improvement area was developmentally targeted programming. It became clear through survey responses that DREAM’s programming was largely geared toward younger youth (age 13 or below), often leaving older youth disengaged or dropping out. To address this need, we turned to the science on adolescence (UCLA, 2026). Our goal was to develop an activity that helps mentors engage with older youth based on what we know thriving looks like during this developmental period. Again, what we know from research is presented alongside what we know from the field, as both are valuable forms of insights (see Figure 4).

Figure 4. Introduction to the “identity flower” activity for engaging older youth

What we know from research

[The science on adolescence](#) clearly shows this developmental period as a stage of opportunity, exploration, and tremendous growth. Adolescents, including those in DREAM, thrive when they:

 Have safe and exciting ways to explore, take risks, and try out new things and ideas.	 Navigate through situations that build their emotional regulation and decision-making skills.	 Develop a sense of purpose through meaningful contributions.
 Earn respect and social status among not just adults, but also their peers.	 Develop personal values and goals that align with their identities.	 Have a supportive, trusting web of relationships (this includes you!).

Top 5 tips from DREAM mentors/YSMs

- **Have deep, 1:1** (or small group) **conversations** about their interests and future aspirations.
- Once they express interest in something, **introduce them to people, places, and resources** (e.g., connect them with someone from your university who majors in the subject that your mentee is interested in, take them to job fairs).
- **Set aside teen-specific time** on topics such as entrepreneurship, cultural significant events (e.g., Black History Month), teen board game nights, practical life skills, leadership opportunities, and coping with difficult situations.
- Build their sense of agency by **asking what they want**: this can be as small as letting them decide what food to get, to as big as letting them plan an outing.
- **Community service, goal-oriented projects** could be a good way to cultivate purpose, foster responsibility, and build confidence. Consider projects that you can revisit over time.

Our activity for engaging older youth—the identity flower—specifically draws on the research behind adolescence as an incredibly formative time for identity exploration and development. In essence, the activity encourages mentors and mentees to artistically express and discuss the various facets of their identities. To start with, the activity prompts mentors and mentees to think about what they really wish the other person knew about who they are (e.g., “Think about your hobbies and interests; think about the words that people close to you might use to describe you”). Mentors and mentees are then asked to draw a flower with various petals (or other images that are made up of multiple parts, such as a solar system with different planets or a tree with different branches), with each petal representing a facet of their identity. Finally, mentors and mentees are encouraged to have a conversation in which they take turns sharing what they drew and how their various identities shape the way they show up in DREAM (see Figure 5).

Feedback from the co-design workshop and pilot testing shows that mentors appreciate having a concrete tool to engage older youth in opening up about themselves. Mentors also appreciate the detailed, step-by-step instructions that our tool provides, which makes talking about identity—no doubt, a big topic—feel more manageable. As one mentor shared:

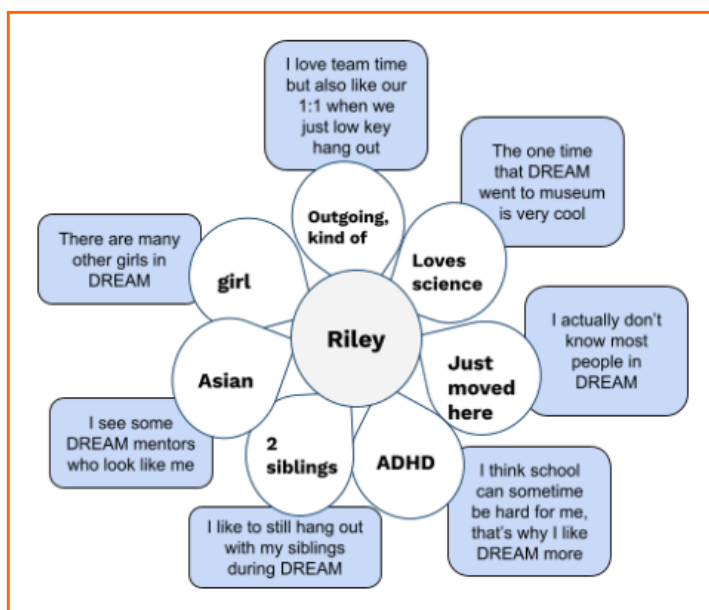
I love that this can get kids talking about their identities in a fairly straightforward way. I think at this age, they can get very uncomfortable talking about themselves and tend to feel very alone. This is a great way to find what we have in common with them, and also recognize that it’s our differences that make us who we are.

Tool 3: A conversation card deck guided by the Developmental Relationships Framework

The final tool aimed to address the inconsistency in DREAM’s one-to-one mentoring relationship quality. DREAM grounds relationship building between mentors and mentees using the five elements of the Developmental Relationships Framework (Search Institute, 2026): Express Care, Provide Support, Challenge Growth, Share Power, and Expand Possibilities. Because of the decentralized program model, though, different sites implement the framework to different extents, leading to inconsistency in relationship quality across sites. Our task was to (re-)introduce the Developmental Relationships Framework and make it more actionable.

We co-designed a tool that is easy to pick up and can be seamlessly embedded into mentors’ and mentees’ one-to-one time: a conversation card deck. Each conversation card is color coded and labeled by the Developmental Relationships element that it is designed to foster. Based on feedback from the co-design workshop and pilot testing, each card is also labeled with approximately how long the conversation

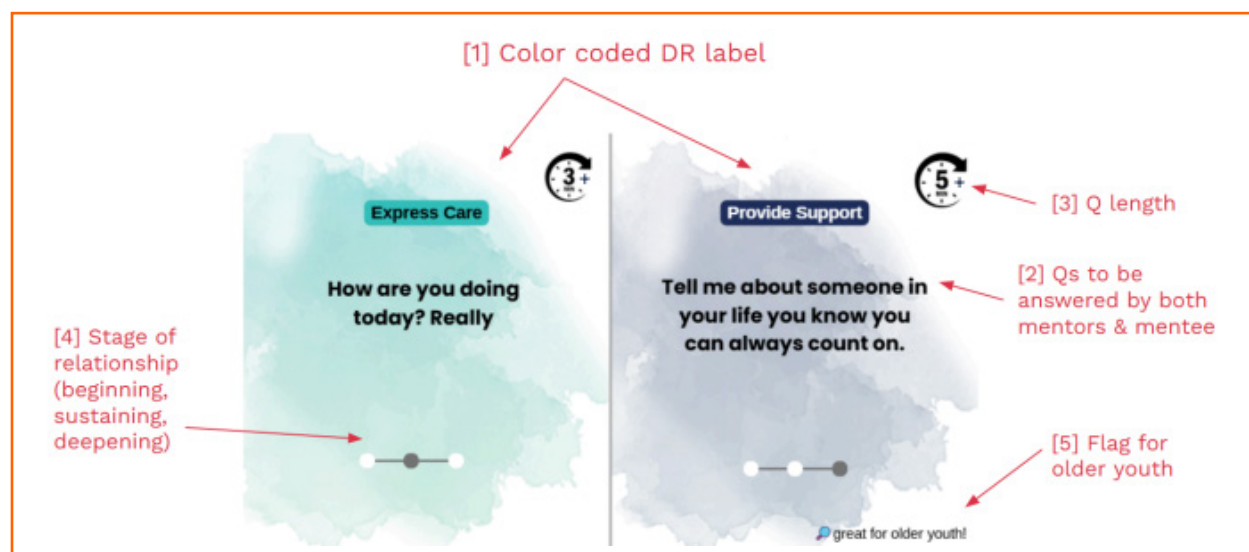
Figure 5. Example from the identity flower activity



will take, what stage of the mentoring relationship the conversation is best suited for, and a label for deeper conversation questions that are fitting for older youth (see Figure 6). Those labels can help mentors quickly pick out cards that would be most appropriate and helpful for them and their mentees.

A key feedback element that emerged from the co-design workshop was the notion that following up through a conversation can be as important as opening one up. Especially because some of the cards might open up vulnerable conversations (e.g., for Share Power: “Are there times when you feel left

Figure 6. Instructions for the Developmental



out? What happened?"; for Express Care: "What is something or someone you loved, but lost?"), mentors were eager for more support and guidance after using the conversation cards. As a result, we added a list of example extensions, or suggested follow-up practices, for each of the Developmental Relationship elements. For Share Power, as an example, we suggested that mentors encourage their mentees to ask them questions, and be open to being wrong by learning about common mentoring pitfalls (National Mentoring Resource Center, 2006).

Feedback from the co-design workshop and pilot testing shows that mentors appreciate having this "back-pocket tool" that helps make a research framework come alive. Overall, mentors value the cards as a helpful tool for facilitating conversations and fostering relationships, even extending beyond mentor-mentee relationships, as a program staff member shared:

The more I sit with these and think about their applications to our work, the more ways that I envision utilizing them to further and deepen relationships across our program—staff with mentors, mentors with one another, and of course mentors and mentees.

Implication for OST Programs

We wrote this article with the intention to share not only the co-designed tools with other youth development OST programs, but also our *process* of translating research into practice. Our process is by no means the only or the perfect way of doing so. For example, we acknowledge that the researchers took the lead on developing the prototypes (which has both pros and cons), and that our pilot testing process was a truncated version of the typical PDSA (Plan-Do-Study-Act)

continuous improvement process. Nonetheless, we hope our work sheds light on how researchers and practitioners can work together to turn insights into actions, with the ultimate goal of better serving youth with research-based practical tools.

Acknowledgments

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