Afterschool Matters

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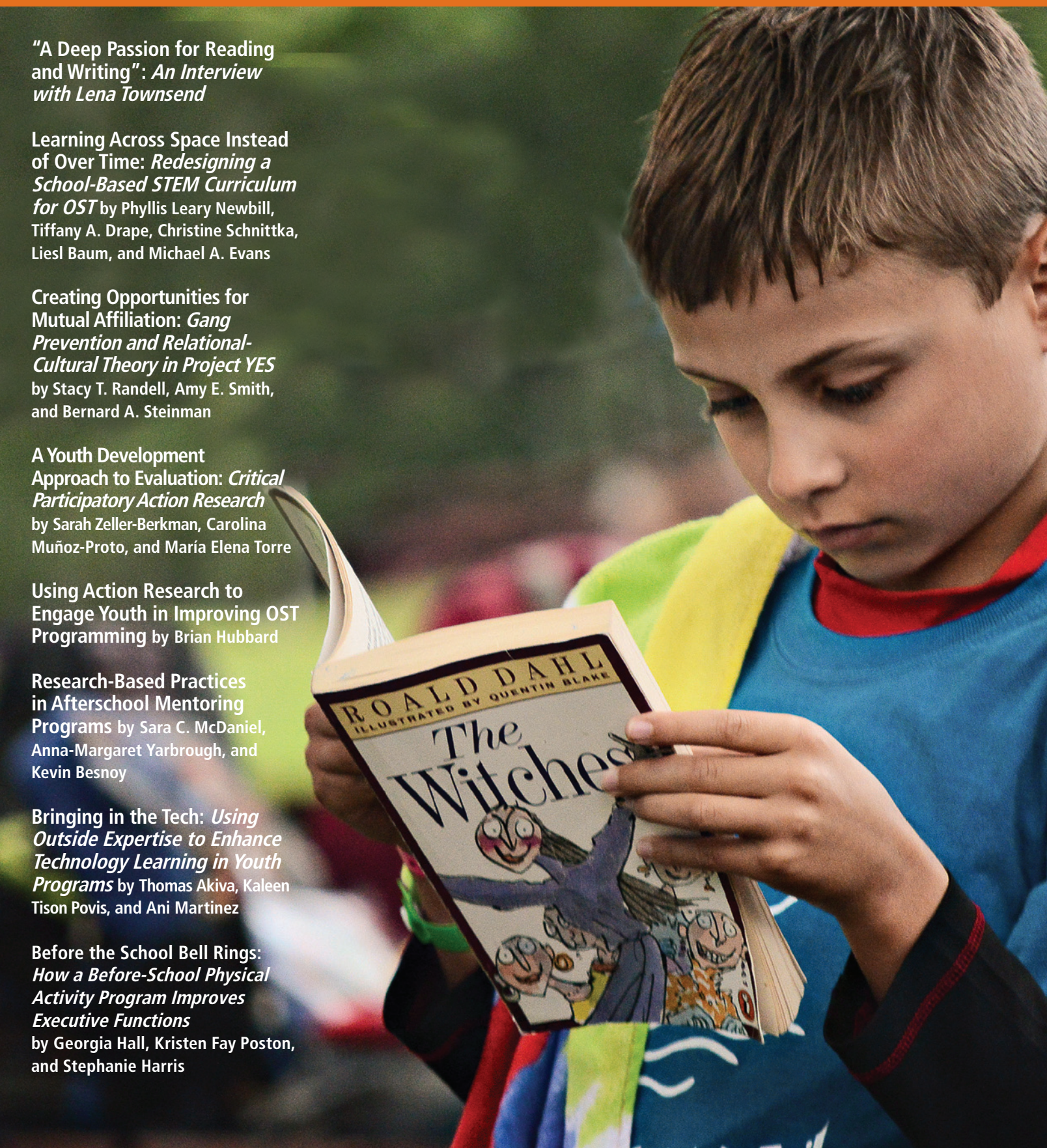

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National Institute on Out-of-School Time

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Photos on cover, pages 4, 13, 24, and 37 compliments of the ARC summer program of the Ashland Recreation Department in Ashland, MA. During summer 2015, the Ashland Recreation Department offered ARC, a summer program for pre-school through seventh-grade children designed to give all children the ability to participate in a wide variety of activities and events with the opportunity to make new friends. Each day the children had the opportunity to plan their own day, selecting from activities such as letter boxing, edible art, crafts, Legos, sports, swimming, and more. The Ashland Recreation Department offers a wide variety of programs year round for children and adults throughout the community.

Photo on page 32 and 54 compliments of BOKS (Build Our Kids' Success). BOKS is a before-school physical activity program with the mission to promote the profound impact of physical activity on a child's mind, body, and community. BOKS is powered by communities and empowers parents, teachers, schools, and local volunteers to give kids a body and brain boost that will set them up for a day of learning. BOKS launched in October 2009, when founder Kathleen Tullie rallied a small but dedicated group of passionate moms armed with a mission, a simple idea, and whistles. Today BOKS, alongside Reebok, has grown to more than 1,200 schools and counting in 48 U.S. states and six countries.

See the inside back cover for the call for papers for future issues of Afterschool Matters.

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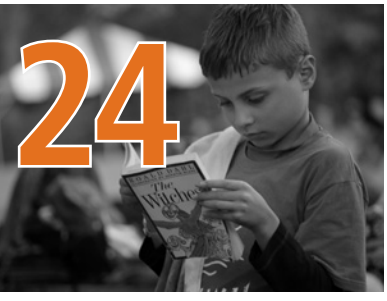

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WELCOME

On October 28, the Robert Bowne Foundation put on its fancy duds and dancing shoes and celebrated over 45 years of supporting afterschool programming and literacy across the United States, with a special focus on the children of New York City. Over the last few decades, the foundation's work of professional development, technical assistance, curriculum development, publication of *Afterschool Matters,* and funding for out-of-school organizations has changed the experience of afterschool programming for countless children and adults.

The National Institute on Out-of-School Time has been fortunate to work as a partner with the Robert Bowne Foundation for the last seven years. We have gratefully accepted an opportunity to extend the foundation's reach beyond its closing through a five-year legacy grant in support of the National Afterschool Matters Fellowship.

Early this fall, 23 out-of-school time program professionals from around the country gathered on the Wellesley College campus in Wellesley, Massachusetts, to begin their research fellowship. This inquiry-based fellowship will enhance their own practice and will improve program quality and experiences for children and youth. Fellows participate in facilitated virtual meetings over the course of two years to produce products such as manuscripts for publication, conference presentations, blogs, or recorded webinars. They will reflect on their practice, engage in inquiry projects based on their own questions and concerns, and write and share about their work.

We view these fellows as agents of reform. We anticipate that they and others who follow will enthusiastically and capably carry on the good and noble work of the Bowne Foundation to improve the lives of children everywhere.

Congratulations to the Robert Bowne Foundation on a job well done!

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Afterschool Matters

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Afterschool Matters is a national, peer-reviewed journal dedicated to promoting professionalism, scholarship, and consciousness in the field of afterschool education. Published by the Robert Bowne Foundation and the National Institute on Out-of-School Time, the journal serves those involved in developing and running programs for youth during the out-of-school hours, in addition to those engaged in research and shaping policy. For information on *Afterschool Matters* and the Afterschool Matters Initiative, contact

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"A Deep Passion for Reading and Writing"

An Interview with Lena Townsend

Robert Bowne Foundation staff, past and present. Back: Karen Valen, Sara Hill, Anne Lawrence. Front: Lena Townsend, Dianne Kangisser.

The Robert Bowne Foundation (RBF), which published *Afterschool Matters* from 2003 to 2008 and continues to fund the journal and related projects, is closing in December. We sat down with Lena Townsend, executive director, to talk about RBF's legacy and continuing influence on literacy work in afterschool programs.

Afterschool Matters: How did you get started in youth work?
Lena Townsend: Actually, I got started with reading. I love to read! In high school, after I'd taken all the English electives, my teacher asked me to tutor a student named David in reading. The materials they used with these students who had difficulty reading—well, even I thought they were boring. So David brought in the newspaper, and we read the sports together. That's where I realized that I wanted to be a reading specialist, though I didn't know that was the name of it.

So I went to New York University in early childhood and elementary education, which was how you learned to teach reading at that time. It was an amazing program, way ahead of its time. I learned so much.

And then I fell into doing adult literacy education. I cobbled together adult ed jobs in community-based organizations, Bronx Community College, and the New York Public Library's Centers for Reading and Writing. Finally I landed a full-time job with the Institute for Literacy Studies (ILS) at Lehman College. I stayed there for 12 years, teaching, doing professional development around authentic literacy work with youth practitioners and adult educators, learning about inquiry.

ASM: So you took this passion for reading with you to the Robert Bowne Foundation.
Lena: Yes, but remember that literacy was the foundation's passion from the beginning. Ted [Edmund A. Stanley, Jr.] founded RBF to fund youth programs. He was funding Boys & Girls Clubs, Scouts, whatever he could find. But the story goes that he heard about a newspaper called *40 Acres and a Mule*, so he walked into this Harlem storefront and offered the guy a grant for his work with young people. And that was the beginning of the focus on literacy.

Then when Ted hired Dianne Kangisser [as executive director in 1983], she really solidified the connection between

youth development and literacy. There weren't any people or organizations doing professional development for out-of-school practitioners. So Dianne brought together a group of adult educators talking about afterschool as a field in its own right—a "third space," along with family and school, that nurtures children's development. Dianne helped to focus the funding on organizations with deep roots in the community. That's when the foundation started showing those organizations how their own focus—art, dance, sports, activism, whatever—could also be used to expand children's literacy skills.

ASM: So how did you become executive director?
Lena: Dianne retired in 1999. I was recruited as part-time program officer, and in 2001 I became the foundation's first full-time executive director.
ASM: And you expanded the staff.
Lena: With the full support of the board, yes. First we looked for a full-time program officer, and that was Anne Lawrence. Sara Hill was brought on as research officer to further develop the journal and lead what would become the ASM Fellowship.

Anne, Sara, and I had been providing technical assistance and professional development for the RBF since the late 1980s. So Anne was very familiar with the programs, and now she had an opportunity to implement her ideas about intensive technical assistance and organization-wide capacity building. She developed programs like the Julia Palmer Library Development Grant and Literacy Support Project for afterschool programs.

Meanwhile Sara was doing the Afterschool Matters Practitioner Research Fellowship, which engages practitioners in reflective research and writing, and the Edmund A. Stanley, Jr., Research Grant. These two vehicles have made possible a lot of the work that has appeared in *Afterschool Matters* over the years.

ASM: And all three of you came out of adult education, didn't you? How did you make that transition?
Lena: Dianne too. We all came out of adult literacy work. I think for all of us it starts with a deep passion for reading and writing, and we'd all worked on integrating literacy in an authentic way and on inquiry work.

But the short answer to your question is the Bowne Professional Development Group, the group I mentioned before that Dianne started. From 1989 to about 1999, RBF funded this group of adult educators and literacy specialists who met monthly to learn about afterschool programs and issues. There weren't any articles for us to read about afterschool education specifically, so we read and discussed research on issues that young people faced as they grew up as well as literacy development.

This group facilitated the first professional development workshops for out-of-school time staff and worked with OST managers to help them train their programs' staff. It was this incredible group of people doing exactly the kind of professional development RBF preaches: sustained inquiry with professional reading and reflection on practice that takes place in a learning community over time.

Anne, Sara, and I all came out of that group, as did a lot of other people who really formed the core of this new field called afterschool in New York City.

ASM: Speaking of not being able to find any articles—that's why you published *Afterschool Matters*?
Lena: Exactly. The journal actually was started by a couple of community-based organizations in the city whose directors were involved in the Professional Development Group, but they couldn't sustain it. We took over in 2003, and we published not only the journal but also a monograph series we called the Occasional Papers Series. Disseminating inquiry work and research-based best practices, especially work done by practitioners, was a natural part of the foundation's goal to improve afterschool education.

When NIOST took over [in 2008], in collaboration with the National Writing Project, we gained national distribution and greater visibility. One of the foundation's legacy gifts will be to continue to provide funding for *Afterschool Matters* for the next few years.

ASM: RBF has weathered a lot of changes in its 47 years. How did it manage to persist in the work?
Lena: We never lost sight of the vision to support and promote quality literacy development outside of school. Beginning in 2002, we focused on recruiting board members with experience in education with community-based organizations, adult literacy, and youth development—up to and including Jennifer Stanley, who replaced Ted as board president in 2001. She runs an afterschool program and summer camp in Maryland. The board's funding decisions always came down to how best to benefit programs. Even the spend-down we're doing now, getting ready to close our doors in December—it's all about how to benefit programs.

Also, we've gotten our grantees involved in our strategic planning, again including the spend-down plans. We believe in our grantee programs and in the work they're doing, and that's why we've never veered off course.

And I'll share one other thing that we've learned in the course of advising our grantees on sustainability—because, you know, we don't work only with the afterschool programs

of these multi-service community organizations we fund. We also help them work out issues in their parent organizations. And here's where RBF has been leading by example all these years: Our board picked staff with the right expertise and then let us make the day-to-day decisions rather than trying to micromanage. That's another reason we've been able to keep this work going.

ASM: What do you see as RBF's most significant contributions to the field?

Lena: Well, some of the things we've been talking about, plus a few more.

- **Long-term professional development.** In the mid-1990s, RBF funded ILS to do the Youth Practitioners Institute, a semester-long experiential course. That's the first long-term professional development in afterschool that we know of. The foundation also funded CLASP, Anne Lawrence's long-term afterschool professional development at the Literacy Assistance Center. More recently the Julia Palmer Library Development and Literacy Support Project has evolved into a yearlong program with monthly meetings and on-site support that foster action research on literacy and library development. Also, for the past 10 years, Anne and a colleague have facilitated quarterly networking meetings for practitioners to share best practices and questions. Topics are decided based on participant feedback. They've covered things like evaluation, family involvement, and working with young staff.
- ***Afterschool Matters.*** I mean the journal, of course, but, perhaps more importantly, the practitioner fellowship and writing that go along with it.
- **Advocacy.** As a result of our funding, New York City has 11 afterschool ambassadors who have been trained to speak with policy makers, put on events, work with community members—all the steps it takes to keep funding coming for this vital "third space" where we help children grow and flourish.
- **Evaluation.** This piece has been maybe the most challenging of all. As early as 1998, RBF funded an evaluation institute for the field. We started funding evaluators to work with programs—but we learned that was a really bad idea. Instead, we focused on helping programs learn to do evaluation. It was participatory. The programs could decide what to evaluate. They learned to collect and analyze data for themselves. Then when they needed outside evaluators, they could tell them what they wanted. Our latest work has been an 18-month institute where program staff learned about socio-emotional learning and then selected the characteristics they want to measure.

ASM: Who has been the biggest influence on you in accomplishing all this important work?

Lena: Oh, the practitioners. I've learned so much from them. Early on, I learned from the programs I observed for *Portraits of Youth Programs,* a project RBF funded in 1989 to highlight the great work programs were doing in literacy and youth development. I watched the staff of one program spend hours every day planning before the kids came in, grappling with how to teach writing in a way that was authentic and developmental. I think that's where I began to understand how literacy could be a part of programming. I understood intuitively that it *should* be, but then I was able to think about it in terms of how to actually plan a program and how reading and writing could be part of it.

Or then there were the sites we worked with in Reimagining the Afterschool Program. Dianne came up with the idea of working intensively for three years with a few programs to help them think about how to re-envision their programming and how to integrate literacy. Now, I'm still at ILS, right, this is 1997 or so, but I'm doing this work with Bowne where I basically lived with these two programs for three years.

The two programs could not have been more different. One was a fairly traditional afterschool program run by an immigrant services agency. It had every need you could imagine: Their building was falling down, their programming wasn't focused, their staff was incredibly young, and they had financial issues. And in all of this, their staff was doing some great work with literacy. They opened my eyes to some of the real challenges afterschool programs face.

The other organization was in a much better place financially and had a strong focus on community service and leadership. Where they needed help was integrating literacy. I mean, literacy was practically built into their advocacy work. But they needed support to help kids get better at reading and writing, by integrating reading and writing into the authentic work they were doing, even as they were working for change in their neighborhoods.

I spent a lot of time with these programs—and many others over the years—just watching the kids, talking with the director and the staff, learning about programming from the ground up. That, plus the Professional Development Group, is how I learned to foster literacy development in afterschool.

ASM: What will you do after the foundation officially closes its doors in December?

Lena: Well, I'm going to spend more time taking care of Lena! [Laughs] But I'm also thinking about getting back to teaching or tutoring reading. That's my first love, and I haven't been able to do much of it for a long time.

Learning Across Space Instead of Over Time

Redesigning a School-Based STEM Curriculum for OST

Phyllis Leary Newbill, Tiffany A. Drape, Christine Schnittka, Liesl Baum, and Michael A. Evans

Both employer expectations (National Association of Colleges and Employers, 2011) and education standards, including the Common Core State Standards and Next Generation Science Standards, are shifting the focus of learning from knowledge and discrete skills to the ability to think critically and creatively. STEM educators, both in and out of school, need to be able to translate existing curricula to meet new goals and priorities. Books, curriculum guides, online resources, and social media all provide rich sources of lesson plans and teaching ideas, but many are specifically designed for teacher-led classroom environments. Searching for curriculum materials can be frustrating for out-of-school time (OST) STEM educators who want to promote the self-regulated learning that is at the heart of informal education.

This paper describes the process of translating an existing teacher-led STEM curriculum to fit a learner-

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led, voluntary learning environment. The essence of the process was to be open to insights gained from reflections on the cases at hand, a research strategy known as *naturalistic generalization* (McKenney & Reeves, 2014). After describing the STEM curriculum, we outline our theoretical perspectives and describe the strategies and tools we used to redesign the curriculum for OST education. A key strategy involved using space rather than time to configure scaffolded learning. The outcomes of this summer camp program suggest that our redesign strategy achieved the goal of converting the curriculum from teacher-led to learner-centered instruction.

Existing Curriculum

Save the Seabirds (Schnittka, 2012) is one of several integrative STEM teaching kits based on design principles originally proposed for the Virginia Middle School Engineering Education Initiative (Richards, Hallock, & Schnittka, 2007). With funding from the National Science Foundation program Innovative Technology Experiences for Students and Teachers (ITEST), it was subsequently modified to center around the environmental issue of water pollution for an instructional series called Studio STEM (Evans, Schnittka, Brandt, & Jones, in press). Learning goals are related to students' understanding of force, energy, and motion, as well as the procedures and processes of engineering design.

In the original school-based curriculum, skills are explicitly taught through PowerPoint presentations, demonstrations, and practice. After several such introductory sessions, the learners are presented with a design challenge: An ocean oil spill is affecting seabirds. To prevent spills, learners need to identify an alternative to offshore oil drilling. Since most of the oil pumped from the ground is used for transportation, learners are challenged to design a solar-powered vehicle that can replace trains, trucks, and automobiles. To reinforce the concept that reducing the need for oil drilling will have a positive effect on the environment, the load carried by the students' model vehicles is plaster-filled plastic eggs. Youth are reminded that every vehicle that does not use fossil fuel saves the seabirds. The lecture presentations and skills practice serve as scaffolding to help the learners understand the scientific concepts well enough to complete the capstone design challenge. The physical instructional kit contains Lego blocks, gears, solar panels, wheels, motors, multimeters to measure electrical voltage and current, a cart with weighted eggs, demonstration materials, and the curriculum guide. The original curriculum has been offered to middle school students in traditional school classrooms, summer camps, and afterschool settings (see, for example, Evans, Lopez, Maddox, Drape, & Duke, 2014).

After several such introductory sessions, the learners are presented with a design challenge: An ocean oil spill is affecting seabirds. To prevent spills, learners need to identify an alternative to offshore oil drilling. Since most of the oil pumped from the ground is used for transportation, learners are challenged to design a solar-powered vehicle that can replace trains, trucks, and automobiles.

Although producing a solar-powered Lego car is an inherently motivating goal, teachers and facilitators who implemented the program in one afterschool setting found that parts of the instruction failed to motivate learners (Lundh, Bhanot, Heying, & Stanford, 2013a). External evaluators found extensive evidence that the lectures in the first several sessions of the curriculum did not engage the students. Those lectures "felt like school," and facilitators had a hard time keeping learners' attention (Lundh et al., 2013a). Evaluators also reported that the afterschool facilitators who were not certified to teach middle school science expressed frustration at their own limited understanding of the concepts and vocabulary (Lundh et al., 2013a).

In a recent iteration of the curriculum in an afterschool setting, facilitators reported that having fewer lectures improved student response. Nevertheless, evaluators still recommended providing more time for hands-on experiences (Lundh, Bhanot, Heying, & Stanford, 2013b).

Using the evaluation data and our personal experience with the curriculum, our mission was to create a problem-based curriculum designed specifically for a summer day camp.

Theoretical Perspective

Our redesign was based on two well-established educational practices: social constructivism and problem-based learning. We added a related perspective called design thinking.

Social Constructivism

Knowledge is always a human construction. Social constructivism emphasizes both the process of knowledge construction by the social group and the intersubjectivity established through the interactions of the group (Au, 1998). In social constructivism, communities of learners socially construct knowledge rather than having it transmitted to them in a decontextualized way (Doolittle & Camp, 1999; Driscoll, 2005). Learning is socially mediated (Schunk, 2008); it is what happens as learners "become proficient in practices that are valued in specific communities" (National Research Council, 2009, p. 30). Vygotsky (1987) stressed that social interactions are a critical point in learning and that knowledge is often co-constructed between two or more people. Social constructivism encompasses critical and creative thinking; learner-determined goals; social issues; and authentic, relevant learning environments.

Problem-Based Learning

Problem-based learning is, as its name suggests, learning that occurs as a result of solving real-world problems (Combs, 2008). It is inherently meaningful and contextualized. Problem-based learning creates environments where students assume ownership of their learning; it is simply more interesting than memorizing information (Jonassen, Howland, Moore, & Marra, 2003). In this constructivist instructional method (Driscoll, 2005), the problem to be solved has "some social, cultural or intellectual value to someone" (Jonassen et al., 2003, p. 20). Savery (2006) defined problem-based learning in the classroom as having certain critical characteristics:

1. Students have responsibility for their own learning.
2. Problems are ill-structured and allow for free inquiry.
3. Learning is trans-disciplinary.
4. Collaboration is essential.
5. Self-directed learning informs group decisions.
6. Reflection is essential.
7. Self and peer assessment happens regularly.
8. Problems have real-world value.
9. Assessment checks process and product.

(Savery, 2006, pp. 12–14)

Design Thinking

Problem-based learning is similar in many ways to the design process, defined as the process by which people understand, delineate, and solve problems. A design thinking mindset allows people to work together (or "radically collaborate") to find new solutions to problems. As defined by the Stanford d.school (2011), the design process involves stages of empathizing, defining, ideating, prototyping, and testing.

Though design thinking is not an instructional method, its processes are similar to those of problem-based learning. However, the goals differ. In design, the goal is to solve the problem, and the process, though it is valued and documented, is incidental. In problem-based learning, "learning along the way" is the goal of the work. As with problem-based learning, design thinking can be explained from a variety of theoretical perspectives (Feast & Melles, 2010). Design thinking is the foundation on which the Design-Make-Play movement is changing formal and informal education (Honey & Kanter, 2013). It makes sense to integrate design and design thinking into problem-based learning (Schnittka & Bell, 2010).

Tools and Technology

Instructional technology can both facilitate problem-based learning and enable users to document learning for assessment and evaluation. In our ideal informal learning environment, each learner has his or her own iPad or similar device for accessing information, documenting work, taking notes, communicating with other learners, and producing final presentations. Artifacts produced during these processes can then be used for assessment and evaluation. For the redesign process described here, we used iPads to provide access to:

- **Web browsers.** When learners have access to the Internet, teachers no longer need to be subject matter experts in every topic. Google and YouTube are powerful instructional tools.
- **Cameras and note-taking applications.** Photos, videos, and notes can be used to document learners' work.
- **Social media.** We used Edmodo, a Facebook-like social media tool made especially for education. It allows learners to post questions, comments, and photos in a closed group. Posted material is then available to learners and facilitators for portfolios and assessment.
- **Presentation software.** Presentations serve to organize learners' reflections, publicize their work, and document the learning process for evaluation and assessment.

Assessment

How can facilitators and instructional designers determine whether learners meet the objectives we set out for them? Traditional academic measures, such as written or multiple-choice tests, "violate critical assumptions about [informal] settings such as their focus on leisure-based or voluntary experiences" (National Research Council, 2009, p. 3). We used badges and learner interviews to assess the effectiveness of the instruction.

Badges

The concept of using badges as an alternative to standardized testing has recently gained popularity for its ability to motivate learners and allow a greater variety of educational paths (Abramovich, Schunn, & Higashi, 2013; Riconscente, Kamarainen, & Honey, 2013; Young, 2012). A learner's particular combination of badges reveals his or her unique skill set in a way that degrees and grade point averages cannot.

As the name suggests, the academic badge concept was inspired by scouting organizations' method for recognizing and documenting achievements. Video game achievements are another inspiration:

> The reasoning is that the strategies that effectively support people to learn new things in game environments might also prove effective in supporting learning of content and skills related to academic subject areas and career readiness. If so, strategic use of badges could help forge effective pathways to STEM engagement. (Riconscente et al., 2013, p. 5)

Badges serve as a way to organize, document, and recognize student learning. Learners choose a badge they are interested in, complete the requirements, and bring their demonstrations or artifacts to facilitators to "prove" their work. When badge requirements are met, learners can be presented with a virtual or tangible badge. The learner-centeredness of badges makes them ideal for problem-based learning.

Interviews

Another method for assessing student learning is interviews. When learners are asked about their process and product, their recorded responses can give valuable insights into their growth. Although interviewing may not be practical for individual assessment, it can serve as a powerful program evaluation tool.

Context

For this iteration of the curriculum redesign, we ran a 16-hour camp over four days. Participants came to the program from 1:00 to 5:00 p.m., Monday through Thursday, during one week of summer 2013. The 15 participants were rising middle school students recruited from the local community to participate in the research and in the free camp at the Institute for Creativity, Arts, and Technology on the Virginia Tech campus.

The camp was staffed by an experienced educator, who served as camp director, and by four high school facilitators. These older teens were hired based on their prior work with youth, their knowledge of STEM content, and their ability to commit the time necessary for training as well as the summer camp. We worked with coordinators from county school systems to advertise the positions. The students who were hired attended a local magnet school for math, science, and technology.

A *design thinking* mindset allows people to work together (or "radically collaborate") to find new solutions to problems. As defined by the Stanford d.school (2011), the design process involves stages of empathizing, defining, ideating, prototyping, and testing.

Instructional Design Guidelines

In the course of redesigning the curriculum from being teacher led and temporally organized to being learner led and spatially organized, we identified seven design strategies:

1. Configure the space instead of the time.
2. Issue the challenge at the beginning of the experience.
3. Include a public presentation.
4. Convert scaffolding material to badge requirements.
5. Strengthen learning goals for process and reflection.
6. Use technology to make information available.
7. Train facilitators.

Configure the Space Instead of the Time

Our camp space was a 4,000-square-foot studio with moveable tables, chairs, and whiteboards. We arranged the tables as badge stations. Each badge station included materials and a list of the badge requirements. Materials lists came directly from the existing curriculum; everything

that a teacher would have had for demonstrations was available at the badge tables. Badges for Teamwork and Symposium were situated on collections of sofas rather than tables. As long as they were generally on task and not disruptive, learners were free to move from station to station as they pleased.

An order of events with a tentative schedule served as a guide to divide the time. After orientation, some icebreakers, and the presentation of the challenge, learners' time was generally unstructured. Learners could choose which badge to work on and when. Counselors would periodically bring the group together to share their progress and play a game. Leaving the time unstructured kept space as the organizing factor.

Issue the Challenge at the Beginning

Instead of waiting until all the scaffolding material had been presented, we gave participants the challenge in the first session of the camp. The challenge then served to motivate and guide participants as they determined how best to use their time.

Include a Public Presentation

At the end of the camp, participants put on a symposium in which they presented their process and product to each other and to family members and studio staff. The presentation not only allowed learners to document and reflect on their work but also served as a motivator. If learners became distracted, facilitators gently reminded them of the goals at hand, the time limits, and the need to prepare a final presentation.

Convert Scaffolding Material to Badge Requirements

We knew that most students would not be able to meet the solar car challenge without scaffolding to help them build component skills and acquire requisite knowledge. Our learning goals encompassed the force, motion, and energy objectives of the original curriculum. We articulated additional goals: collaboration, motivation, and problem-solving skills. These skills were translated into observable behaviors and categorized as badges.

We created seven badges: Energy and Fossil Fuels, Solar Circuits, Gears, Friction, Teamwork, Solar Cars, and Symposium. Each badge consisted of three or four requirements that showed how the learning objective was met (see boxes on this page). Some, like the Friction badge, were simply reworked from the original curriculum with little change. Others, like the Symposium badge, were completely new to the curriculum. Solar Cars and Symposium were essentially required badges; both were earned by virtue of fully participating in the camp. In keeping with the free-choice principle, the other five badges were optional. Participants were told that the skills learned for the badges would probably help with building the car. The record of demonstrated skills served as assessment and removed the need for paper-and-pencil tests.

> We arranged the tables as badge stations. Each badge station included materials and a list of the badge requirements. Materials lists came directly from the existing curriculum; everything that a teacher would have had for demonstrations was available at the badge tables.

Strengthen Learning Goals for Process and Reflection

The badges that were new to the curriculum, Teamwork and Symposium, legitimized the learners' efforts to collaborate, reflect on their work, and document their work—all of which are critical skills in the design process. In addition, participants were encouraged to use the Edmodo social network to document their work and collaborate.

Participants worked through the camp curriculum in four teams of three and one team of two. Working in teams encouraged learners to think critically about their process as they defended or questioned decisions made by team members.

Use Technology to Make Information Available

In previous uses of the curriculum, teachers reported feeling uncomfortable with their own understanding of the engineering concepts (Lundh et al., 2013a). The high school students who facilitated the camp had taken advanced classes in STEM subjects, but none was a particular expert in the badge topics. Instead of living subject matter experts, learners had iPads, which they used to do research on the web, take notes on the design process, post on Edmodo, and develop their final presentations. The facilitators were not responsible for having all the knowledge.

FRICTION BADGE REQUIREMENTS

1. Experiment with objects of various weights and compare their weight, static friction, and sliding friction force. Make a conclusion about the relationships among them. Document your work.
2. Use pull-back toy cars with various materials (wax paper, sandpaper, rubber) on the back wheels to determine which material has the most sliding friction. Document your work.
3. Use a spring scale to measure the sliding friction of three different tires. Document your work.

SYMPOSIUM BADGE REQUIREMENTS

1. Create a timeline of your process to present at the symposium.
2. Share the story of your process and products with the public.
3. Show how your design saves the seabirds.
4. Make your presentation in about five minutes.

Train Facilitators

As with previous iterations of the curriculum, training facilitators was key to the program's success. The veteran educator who served as the camp director was experienced with the curriculum. She trained the four high school facilitators to manage the learning environment. These older teens gave learners their challenges, monitored their progress, assisted at badge stations, and served as role models.

Before the training, the teen facilitators were given the curriculum so they could familiarize themselves with the content. At the full-day training session, the camp director helped the teens understand the task of facilitating as opposed to teaching, using *Quantum Teaching: Orchestrating Student Success* by DePorter, Reardon, and Singer-Nourie (1999). Role-playing was used to model facilitation behaviors, showing the teens how to use age-appropriate language to explain the necessary science concepts.

The teen facilitators took an active role in getting the camp ready. They helped to decide how to set up the space, taking into account the potential learning styles of the youth and anticipating what might work for all of the campers. They then worked through each badge station, making modifications and suggestions as they anticipated the students' needs. The camp director modeled good questioning techniques, offered suggestions, and helped the teens learn to combine content facilitation with group leadership. Facilitators were encouraged to use higher-order thinking when crafting questions.

In some ways, this facilitator training was like the training for previous uses of the curriculum: Facilitators learned about the curriculum and acquired leadership strategies. However, this training was different in that it prepared facilitators for the flexibility required for a program organized around space rather than time. With an attitude of "absolute rigid flexibility," teen facilitators prepared icebreakers and collaborative games to help redirect the learners as needed. Since the facilitators were themselves high school students, their own STEM learning was being reinforced. The camp director, the only professional educator on staff, was freed up to manage the instruction.

Training continued throughout the camp. At the end of each camp session, the teen facilitators wrote in journals, using guiding questions developed specifically for this curriculum. They also participated in a debriefing session to highlight what was going well and what needed to be addressed for the next day. Their questions and suggestions helped them refine their methods of guiding students through the engineering design process and the badge stations.

How It Worked

Of the camp's 15 participants, 14 came all four days; one camper did not return after the first day. The remaining participants engaged fully in the camp. Each team of two or three learners built a working solar car and presented at the final symposium.

To assess how well our redesign accomplished its goals, we collected data in several ways, with institutional review board approval. Undergraduate researchers interviewed two of the camp's 15 participants in order to construct case studies. We used a badge notebook to track which badges were earned by whom and when. We observed the camp and kept notes on these observations. Artifacts generated during the design of the camp, including curriculum materials, schedules, and maps, contributed to our understanding. Artifacts generated

by the participants, including symposium presentations, photos, drawings, and Edmodo posts, were also used in this analysis. Finally, the camp facilitators' journal reflections provided additional data.

The camp was generally a success. (For specific analysis of the data collected, see Evans et al., 2014.) This section discusses how each of the seven recommended design strategies contributed to participants' learning.

Configuring the Space Instead of the Time

In previous iterations of the curriculum, learners had appeared bored during lectures (Lundh et al., 2013a). In this summer camp, learners remained engaged. Though the unstructured time and access to technology meant they were occasionally distracted by the ability to modify self-portraits or find new material on YouTube, they did not stay off task for long. The symposium deadline and friendly competition among groups kept motivation high.

> However, this training was different in that it prepared facilitators for the flexibility required for a program organized around space rather than time. With an attitude of "absolute rigid flexibility," teen facilitators prepared icebreakers and collaborative games to help redirect the learners as needed. Since the facilitators were themselves high school students, their own STEM learning was being reinforced.

Issuing the Challenge at the Beginning

The participants were clear from the beginning that their goal was to build a solar car that could pull a set of eggs. In the first few days, we heard them discussing which badge requirements would help them reach this goal. In their reflective presentations at the end of the camp, they said that they came to appreciate the value of the engineering design process. Conducting research, prototyping the car, and experiencing iterative failures and incremental success was a motivating process. Having the challenge from the beginning helped to focus the learners' efforts and provide a cohesive experience.

Including a Public Presentation

All the camp participants had a role in the final symposium. Some groups made videos or slide shows set to music. Some demonstrated their cars. Some said they wished they had spent more time on their presentation and less on their car. The symposium not only provided a culminating event but also added an element of peer accountability. Participants were responsible for speaking to the audience and communicating their part in the process. Parents commented that they enjoyed seeing their children's work.

Converting Scaffolding Material to Badge Requirements

All 14 participants completed the Solar Car and Symposium badges by virtue of fully participating in the camp. Different groups of participants approached badges in different ways. One group completed most of one badge the first day and a full badge the second day; then the group did no more badge work. Two groups completed a badge the first day only. Another completed one badge on the first day and started but did not complete two more. These groups did not seek to earn badges after they began working in earnest on the design challenge. However, the final group earned all five optional badges, though group members were ambivalent when asked about the value of the badges.

The experiences of these groups show that badges can motivate learners who might not know where to begin to solve a larger problem. We used Edmodo to publish badge achievements but did not offer an award ceremony or other recognition. Badges might be more motivating with a more formal public recognition of achievement.

Strengthening Learning Goals for Process and Reflection

Several elements of the camp, including Edmodo, the Teamwork and Symposium badges, and the final symposium itself, were designed to gather learners' reflections on and data about the process. Edmodo was heavily used: Participants posted often and responded to each other throughout the week. Their conversations provided a small window into the learners' process.

The Teamwork and Symposium badges were designed to recognize the work of process and reflection, but they were not particularly motivating to students. The only team that completed the Teamwork badge is the one that earned all of the badges. Meanwhile, all participants earned the Symposium badge by virtue of

participating in the symposium, but the peer pressure and public audience, rather than the badge, seemed to be what motivated the students. The symposium itself provided an important outlet for participant reflections. Students' public presentation of their process also gave researchers insights into the participants' experience.

Using Technology to Make Information Available

The iPads were helpful for both accessing and sharing information. Students stated in interviews that they used the iPads to access YouTube and Wikipedia to help them understand such topics as gears and solar cells and to look up information on designing and building solar cars. Learners used an app to sketch out car designs and collaborate with their group; they took pictures and videos to document their progress. They shared on Edmodo the information they found and the designs they generated. Finally, they used their iPads to design their symposium presentations, incorporating the media they had generated throughout the week.

Training Facilitators

Training helped the teen facilitators become comfortable with the curriculum, including its flexible schedule. Working through the curriculum at the badge tables, just as the learners would later do, gave them a feel for what participants would experience, what questions they might have, and what challenges they might encounter. The training also gave the facilitators time to become comfortable with the camp's lack of temporal structure.

Stimulating STEM Interest

The camp, redesigned from being a teacher-led, temporally organized experience to a learner-led, spatially organized learning experience, was a success. Our seven strategies for redesigning instruction put learners in control of their learning so that they remained motivated throughout the experience.

OST educators can use our seven design-based strategies to adapt school-based curriculum to their needs. These strategies can help to spur participants' interest in problem-based learning projects that integrate several learning modalities. The emphasis in our summer camp on problem solving, new media, and peer interaction stimulated participants' interest in deeper STEM learning (Evans et al., 2014). Future research will explore how well the model can be applied to other formal curricula.

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Creating Opportunities for Mutual Affiliation

Gang Prevention and Relational-Cultural Theory in Project YES

Stacy T. Randell, Amy E. Smith, and Bernard A. Steinman

American youth do not have equal access to academic success and life achievements. In particular, low-income male students of color are disproportionately failing in school, filling prisons, and enduring the consequences of low social capital and poor investment in their futures (Losen & Skiba, 2010).

Indeed, a large body of research documents the lifelong impact of cumulative disadvantage, including poor physical, mental, and emotional health (Cohen, Janicki-Deverts, Chen, & Matthews, 2010). Unfortunately, many young people cope with poverty and life in high-crime neighborhoods by joining gangs and pursuing other antisocial behaviors that compound their personal challenges. The "fraternal interdependence" (Spergel, 1995, p. 50) offered by gangs makes youth who have been exposed to multiple risk factors vulnerable to recruitment.

To prevent gang affiliation, afterschool programs need to foster practices and adult-youth relationships that recreate the group identification and social status that gangs often offer to marginalized youth (Spergel, 1995). Even youth who face extreme marginalization and poverty experience gains in self-efficacy and emotional safety when they have nurturing

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connections with caring adults (Sta. Maria, Martinez, & Diestro, 2014). A study of more than 12,000 adolescents revealed that a sense of connection to a caring adult was the most important factor in reduced risk for a multitude of negative factors, regardless of differences in race, ethnicity, socioeconomic status, and family composition (Jordan & Hartling, 2002). However, the extent to which specific relationship-building strategies are used in afterschool programs that serve high-risk youth is largely unexplored. Even the extensive report of Eccles and Gootman (2002), which summarized work to pinpoint the kinds of physical, intellectual, and emotional support adolescents need to thrive, acknowledges that little is known about effective youth development programs that serve the highest-risk youth.

The stakes for youth and communities are continuously rising. Privatization of prisons and "tough on crime" laws have contributed to escalating incarceration rates, especially among Black and Latino males (Street, 2001). Children of prisoners are five times more likely to be imprisoned themselves than other children (Street, 2001). Identifying a specific youth development model and particular relationship-building strategies that can serve young people who are vulnerable to these dire outcomes would be invaluable for afterschool programs in low-income communities.

Identifying a specific youth development model and particular relationship-building strategies that can serve young people who are vulnerable to these dire outcomes would be invaluable for afterschool programs in low-income communities.

Our case study takes an inductive approach to examine how growth-fostering relational-cultural strategies were used in a gang prevention afterschool program in a high-risk neighborhood. We use relational-cultural theory as the theoretical foundation to examine how the program facilitated relationship building among staff, students, and parents. Our findings suggest that relational-cultural theory may be a useful tool in designing violence prevention programs for youth.

Context

This case study focuses on Project YES (Youth Empowerment Success), an afterschool gang prevention program at the Thurgood Marshall Middle School (TMMS) in Lynn, Massachusetts. Project YES was created in 2005 by a violence prevention task force including representatives from city government, public schools, community organizations, and North Shore Community College. The program targets students with characteristics that put them at risk of gang involvement, including low academic achievement, delinquency, negative peer relationships, and known association with gang members (Spergel, 1995). Program goals include keeping youth out of gangs, increasing high school graduation and college admission rates, building self-esteem, fostering positive decision making, reducing crime, and giving youth "a fighting chance" to overcome barriers to success (Davis, 2005, p. 15).

Project YES Staffing and Structure

At the time of our study in 2013, Project YES staff included a program director, a parent outreach worker, a computer specialist, and other program staff, all of whom were Lynn public school teachers. Most but not all teachers were male. Current teachers at TMMS were intentionally woven into the program design to provide vital links between the program and the school. Program activities were implemented with support from program assistants, outside presenters, and male and female volunteer mentors.

Project YES focuses on male students because boys are more likely than girls to join gangs. In 2013, Project YES met twice a week during the school year and three times a week during a six-week summer session. Approximately 30–35 middle school boys, ages 12–14, participated to varying degrees. Some joined in sixth grade and stayed until eighth-grade graduation, while others joined in seventh or eighth grades.

All students in Project YES are expected to maintain consistent program and school attendance, demonstrate improved academic effort and performance over time, and exhibit improved social skills with peers and teachers. If expectations are not met, consequences included loss of privileges such as participation in field trips or, as a last resort, removal from the program.

Project YES features multiple components central to positive youth development, all offered in the context of caring relationships with adults: academic support such as tutoring and computer lab work; life skills including nonviolent conflict resolution, socio-emotional learning, and communication skills; career development including college visits, community service, and one-on-one

mentoring; and recreational or fitness activities including basketball and field trips (Davis, 2005).

Recognizing that supportive relationships are often missing in the lives of marginalized youth (Jones & Deutsch, 2010), Project YES emphasizes—as a foundational and bidirectional program practice—opportunities for participants to form healthy relationships with peers and other adults in a safe environment. Rather than being simply *something they want to do* once school is over, Project YES is a place where students can *become someone they want to be*.

Student and Community Demographics

According to the 2011 National Opportunity to Learn Report on Massachusetts, children of color are disproportionately represented in poorly resourced, low-performing schools. Project YES participants—predominantly male youth of color who live in poverty—face significant obstacles to academic and life success. Like others of their class and race nationwide, they are far more likely to drop out of high school than their white or middle class counterparts and are more likely to suffer suspension or expulsion for nonviolent offenses (North Shore Community College, n.d.). Lynn students receive out-of-school suspension at a rate three times the Massachusetts average (North Shore Community College, n.d.). Such exclusionary public school responses to behavioral issues can increase students' shame and isolation and add to the accumulation of disadvantage over time (Ruiz, 2005). Many Project YES parents, like other parents facing time and income poverty (Dodson & Albelda, 2012), have limited availability to engage consistently in their children's academic lives.

The ethnic and socioeconomic makeup of Project YES students reflects the diversity of the city of Lynn. According to the 2010 U.S. Census, Lynn residents were 32 percent Latino, 13 percent African American, and 48 percent white. In 2012, Project YES participants were 47 percent Latino, 13 percent African American, 13 percent Asian, 17 percent multiracial, and only 10 percent white (Project YES, 2012). Fully 90 percent of TMMS students qualified for free or reduced-price lunch (North Shore Community College, n.d.).

Relational-Cultural Theory

Relational-cultural theory is rooted in psychotherapy and in methods of promoting psychological well-being developed at the Stone Center for Developmental Services and Studies at the Wellesley Centers for Women, founded in 1981 at Wellesley College. In contrast to dominant psychological theories of human development that emphasize separation and individuation of the self as cornerstones of healthy psychological growth, relational-cultural theorists suggest that self-development is a lifelong process based on healthy relationships with other people; the process is characterized by increased power because of authentic connection (Bergman, 1991). According to Jordan and Hartling (2002), "practitioners essentially honor growth and safety through connection, not through separation or imposing power over others" (p. 8). Optimal human development is characterized by "a realization of increased relational competence over the life span" (Comstock et al., 2008, p. 280). Historically known as "self-in-relation" theory (Jordan & Hartling, 2002, p. 10), relational-cultural theory says that a crucial component of this mutuality is an understanding of one's effect on other people.

In contrast to dominant psychological theories of human development that emphasize separation and individuation of the self as cornerstones of healthy psychological growth, relational-cultural theorists suggest that self-development is a lifelong process based on healthy relationships with other people; the process is characterized by increased power because of authentic connection.

Particularly for people from marginalized groups disconnected from themselves and others by their sociocultural realities—school expulsions, high unemployment, interpersonal violence, incarceration, and the like—intentionally developing the tenets of relational-cultural theory can build long-lasting insights and connections that promote relational resilience (Jordan & Hartling, 2002). Recognizing that interpersonal differences, especially when exacerbated by sociocultural imbalances, create severe disconnection, relational-cultural theory acknowledges power differences and their effect on human potential.

According to proponents of relational-cultural theory, growth-fostering relationships can help high-risk students to discard negative aspects of the "social inheritance" that seems to have encased them at birth (Gladwell, 2008, p. 175). The primary vehicle of increased relational capacity that fosters growth is relationships based on *mutual* empathy. Relational-cultural theory posits that individuals in healthy relationships recognize and actualize five essential elements—"the five good things":

1. Increased zest
2. Greater clarity of self and others
3. Increased ability to take action
4. Increased empathy
5. The desire to build more relationships

(Jordan, 2001)

Relational-cultural theory recognizes that people do not thrive in isolation but rather depend on positive social connection to actualize the best in their lives.

Previous Research on Relational-Cultural Theory

Though many books and working papers have explored relational-cultural theory in a variety of settings, few studies have documented its impact. One that comes close is a qualitative study of how urban and suburban youth described their relationships with important adults in their lives. Spencer, Jordan, and Sazama (2002) conducted focus groups with 91 youth from a variety of social, economic, and cultural contexts. The critical elements of good relationships with adults that these youth identified reflect the core tenets of relational-cultural theory. In particular, the youth cited *mutuality,* in which the "responsiveness of both partners forms the core …, and each individual develops a sense of relational competence," as a key ingredient of caring relationships with adults (Spencer et al., 2002, p. 8).

In addition, the effect of increased relational competence among youth peers has been documented in a group setting. Cannon, Hammer, Reicherzer, and Gilliam (2012) facilitated a curriculum specifically designed around relational-cultural theory to examine its effect on relational aggression. Their findings support the potential of creating "transformative relational competencies" by intentionally using relational-cultural principles to guide program practice and adult-youth interactions (Cannon et al., 2012, p. 3).

Relational-Cultural Theory in Programs for High-Risk Youth

Although by nature humans yearn for connection, institutionalized oppression and personal experiences of trauma or betrayal may erode the ability of students to form positive connections (Birrell & Freyd, 2006). As a result, youth often experience the "central relational paradox" described by relational-cultural theory (Ruiz, 2005, p. 49): In order to avoid further psychological pain, they behave in ways that further isolate them from human connection. For example, the students who most need academic or emotional support may, in order to avoid a sense of shame or incompetence, act out in the classroom and then be removed from the class. Bergman (1991) emphasizes that socialization of males in particular creates "agents of disconnection" fueled by anger that can lead to aggression and violence (p. 7).

Project YES staff do not see themselves as the givers and students as the recipients. Rather, students are empowered to realize that they affect teachers' lives just as the adults influence them. This key distinction characterizes a youth development model that may best serve high-risk youth.

One way afterschool programs like Project YES can cope with this central relational paradox is to implement intentional strategies that promote affiliation and mutual empathy. Though Project YES was not explicitly built on the tenets of relational-cultural theory, its stated goals are consistent with the theory, and our study confirms the presence of "the five good things." While maintaining appropriate professional boundaries, staff intentionally share their "real selves" in order to build relationships with youth. Project YES staff do not see themselves as the givers and students as the recipients. Rather, students are empowered to realize that they affect teachers' lives just as the adults influence them. This key distinction characterizes a youth development model that may best serve high-risk youth. Proponents contend that understanding relational-cultural theory and its practice can deepen programs' positive effects by demonstrating how to form supportive adult-child relationships based on mutuality. Such relationships can reduce individual and

societal costs associated with "emotional misattunement" (Goleman, 1995, p. 101).

Relational-cultural theory defines *culture* as a broad construct of social and cultural contextual factors including not only race and ethnicity but also gender, socioeconomic status, geography, educational attainment, and so on—all of which influence how people think and feel about themselves (Hartling, 2003). Particularly in an economically depressed and multicultural community like Lynn, "internalized cultural relational images" (Ruiz, 2005, p. 46) can have profound effects. For example, Latino Project YES participants may deal with a cultural expectation that they must be "tough" and never back down from a fight. Understanding of such internalized images must be explicitly woven into program delivery and staff training.

Comstock and colleagues (2008) noted that "culture-based relational disconnections" are especially important in addressing program staff competency levels (p. 280). For example, adults with middle-class backgrounds and belief systems can completely misunderstand the actions of children who live in poverty unless they are trained to make cultural connections. Differences in power and privilege can derail healthy relationships, capacity for resilience, and self-efficacy—unless they are counterbalanced by growth-fostering relationships. Relational-cultural practices may also help poor and immigrant families strengthen their connections to their children's school.

Our case study used relational-cultural theory as a lens to explore how Project YES worked to form youth-adult relationships characterized by mutual empathy and empowerment. We used the qualitative methods outlined below to investigate how adults involved with Project YES understood and demonstrated relational-cultural strategies—though neither staff nor parents had been explicitly exposed to relational-cultural theory. Our study revealed that staff and students shared relationships characterized by mutuality and deepened by "the five good things."

Methods

We conducted semi-structured interviews with 11 adults involved in Project YES: five parents of program participants or alumni and six staff members. All five of the parents interviewed were women. Three were Latina, one Southeast Asian, and one white. The four parents of color were immigrants. The five male and one female staff interviewees were all white. Teachers in the Lynn school district are predominately white (75 percent), though only 29 percent are male (Massachusetts Department of Elementary and Secondary Education, 2013).

Participant Recruitment and Data Collection

To recruit Project YES parents, the lead researcher announced our study at a Project YES event, and the program director facilitated contact with parents of alumni. The four parents of current students and one alumni parent we interviewed were paid $25 apiece for their time. To recruit staff, we used a modified snowball sampling procedure. First we interviewed the onsite Project YES site coordinator, and then he helped to identify and recruit additional staff. All staff members were recruited, and a total of six—one intern and five paid staffers—completed interviews.

One researcher conducted all 11 interviews, which lasted between 30 and 60 minutes. One parent was interviewed by phone; the other 10 interviews were conducted in person. The researcher took notes by hand during the interviews. Eight of the 11 interviews were also audio-recorded and later reviewed to confirm the accuracy of the notes. The first three interviews were not taped because participants signaled apprehension at being recorded.

We used a combination of closed and open-ended interview questions followed by probes to identify the presence or absence of elements of relational-cultural theory in Project YES participants, staff, and parents. Table 1 shows sample interview questions for each of "the five good things." In addition to questions related to relational-cultural theory, open-ended interview questions allowed participants to express their own interpretations of social meanings in Project YES. For instance, the interviewer asked participants to discuss what they liked best and least about Project YES, what they perceived to be the program's goals, what they saw as program highlights, and what they would change.

Data Analysis

Following Yin (2010), we used both inductive and deductive strategies for data analysis. We let "the five good things" of relational-cultural theory serve as our first set of categories, focusing on the extent to which these concepts appeared in our data. Because "the five good things" are a two-way street, benefiting all parties in a relationship, we looked for the development of these elements not only in students but also in staff and parents. For the inductive portion of the analysis, we drew on open and axial coding strategies (Strauss & Corbin, 1998) to identify themes in the data. To address intercoder reliability, two researchers participated in the coding process.

We used several strategies to support the validity of our findings. First, interviewing not only Project YES staff

Table 1. The Five Good Things and Sample Interview Questions

The Five Good Things of Relational-Cultural Theory	Definition*	Interview Question
INCREASED ZEST	Does this relationship give you more energy because of the connection with each other?	Parent question: What is something you can offer other parents in the [school] community?
GREATER CLARITY	Do you have a greater understanding of yourself as a person and your connection with other people?	Staff question: Does an adult's role and interaction with Project YES students differ from other teachers, staff, or other adults at [school]?
INCREASED ABILITY TO TAKE ACTION	Does this relationship increase your sense of empowerment and agency to act on your own behalf?	Parent question: What is your relationship with your child's teacher? Has Project YES made it easier to connect with the teacher?
INCREASED EMPATHY	Does this relationship allow you to see things from others' point of view and "walk in their shoes"?	Staff question: Did you receive training for your work with Project YES students? Did you learn new approaches to students that you hadn't used before?
DESIRE TO BUILD MORE RELATIONSHIPS	Does this relationship encourage you to connect with others and build trust with other people?	Parent question: Does Project YES recognize your culture in its programs or activities?

* Source: Ruiz, 2005.

but also parents enabled us to gather varied perceptions and accounts of social interactions and program activities. Second, we asked study participants to confirm the accuracy of emergent themes in a process known as respondent validation (Maxwell, 2009; Yin, 2010). Comments from study participants indicated that our conclusions have face validity. Finally, to corroborate our findings, we reviewed Project YES documents including three annual grant reports, a comprehensive United Way community youth survey (Surr & Richer, 2011), staff-generated outcome reports on student progress in program years 2010–2012, and demographic data collected by the City of Lynn and the U.S. Census Bureau.

Evidence of Relational-Cultural Theory in Project YES

Adult stakeholders implicitly identified elements of "the five good things" at work in Project YES. Parents and staff members gave multiple examples of students and staff having developed the core elements of relational-cultural theory.

All of the parents we interviewed said that their children demonstrated increased zest by spending more time on homework and becoming more involved in school activities. Most parents shared examples of increased clarity; their sons began to connect their present academic effort to the possibility of college admission in, as one staff person put it, "a world outside of Lynn." All five parents said that children clearly demonstrated higher levels of empowerment, as grades, attendance, and behavior improved. Most said that students had developed increased empathy and that they expressed a greater desire for relationships by engaging more with their families and becoming role models for younger siblings. Table 2 shows examples of parent responses related to "the five good things."

Table 2. Parent Responses Related to Elements of Relational-Cultural Theory

Element	Sample Parent Responses
ZEST	• He's more interested in sports and music. • He does more homework now; he wants to do well. • He helps more in the house, has better behavior, is a better person.
CLARITY	• He is more self-confident, sure of himself. • He now knows his value and what he needs to do to be a good man.
ABILITY TO TAKE ACTION	• He thinks about college, talks about college. • [Project Yes staff] reinforce the idea that the outcome of your life is your decision. • [Staff] have 110 percent helped him reach his dreams.
EMPATHY	• He is calmer, more likely to apologize if he's in the wrong. • The teachers share part of their own stories with the kids.
DESIRE FOR RELATIONSHIPS	• He is more near to me. We talk more. • Now he is involved in more things. • He goes [to Project YES] every time and wants to be part of the group.

Table 3. Staff Responses Related to Elements of Relational-Cultural Theory

Element	Sample Staff Responses
ZEST	• Kids participated more in the Poetry Slam event because of staff engagement. • Kids feel more comfortable going to school.
CLARITY	• When we went to [a local college], you could see that a light bulb went off; higher education does exist for them. • The field trips help to open up their eyes and see there is a whole world outside of Lynn.
ABILITY TO TAKE ACTION	• The kids now strive to get into the top high schools in Lynn. • Many kids start with failing grades and move to principal's list of As and Bs.
EMPATHY	• The kids know we care about them as people, not just students. • Because [the youth] see us as real people, we can ask, "What's going on at home?" • Each kid has a different story. We have to adapt to the kids' needs and wait until they're ready for [us] to address them.
DESIRE FOR RELATIONSHIPS	• Our kids will talk to us. They trust us. • I introduced the kids to my dad at a sports field trip when I was coaching. I wanted them to get to know my family.

Similarly, all six staff interviewees saw "the five good things" in their interactions with students. All exhibited increased zest in their consistently positive responses to the question, "What do you like best about Project YES?" One teacher said that witnessing the positive changes exhibited by the students was "the reason I got into education in the first place: to work on a program like this." A staff person gave an example of increased clarity in interactions with students, reporting that she felt afraid before coming to Project YES but now looked forward to spending time with students. Increased empowerment was illustrated as one staff member described how students learned together by sharing their knowledge and experiences. Staff revealed increased empathy as they spoke about the need to adapt their own behavior to the stories of individual students, rather than adopting a cookie-cutter approach. The desire for more relationship was evident when three teachers reported that they introduced students to their own families. Table 3 displays more examples of staff responses that correspond to "the five good things."

In addition to these large themes, a number of sub-themes emerged during analysis of interviews. Staff and parents said that Project YES:

- Reduced participants' social stigmas
- Expanded participants' aspirations for the future
- Helped "outsiders," including both students and parents, to better integrate into the larger community
- Helped align parents and staff in achieving Project YES goals for students
- Treated parents as participants, but not as consistent contributors

Table 4 shows how each of these sub-themes aligns with "the five good things" and illustrates them with examples from our data.

Table 4. Interview Sub-Themes

Sub-Theme	Relational-Cultural Theory	Examples
Reduction in Social Stigmas	Zest, empathy	• Project YES has lost its "bad kid" stigma. • A "we can do it mentality" is a student strength.
Expanding Future Aspirations	Clarity, empowerment	• Project YES encouraged exploration of the world outside of Lynn and "encouraged [participants] to live a different life."
Integration of "Outsiders" with the Larger Community	Desire for more relationships	• After learning about parental computer controls, one parent said she felt empowered to share her son's participation in the digital world. • Students feel "like a family" and "try to help each other out" at school and in the neighborhood.
Alignment of Parents and Staff	Clarity	• Both staff and parents focused on building positive youth assets, developing leadership, helping students succeed, and "showing them they can go to college."
Parents as Participants but not Contributors	Empowerment	• Parents were not asked to share their culture or talents. Staff were not clear about the role of parents.

Specific ways program delivery enhanced "the five good things" were revealed in the interviews.

- Staff increased students' zest by emphasizing the importance of homework and consistent school attendance.
- Field trips to college campuses, a predictable program structure, and expression of a genuine belief in students' ability to achieve promoted clarity.
- Weekly celebration of student achievements helped to increase students' belief in their ability to take action.
- Mutuality increased empathy and connectedness. Staff acted not as authoritarian teachers but as authoritative figures who nurtured authentic connection. Staff and workshop presenters also taught social and communication skills to help students understand the effect of their words and actions on others.
- Parents said that their sons showed a desire for more relationships by becoming more attentive to younger siblings and more willing to participate in family activities.

Implications for Practice and Policy

This case study explored the presence of relational-cultural theory tenets in Project YES. According to both parents and staff, cultivation of what relational-cultural theorists call "growth fostering" relationships promoted "the five good things" in Project YES participants. Even though staff did not intentionally integrate relational-cultural theory, its key ingredients appear to have contributed to the success of Project YES students in a way that can serve as an example of program design for marginalized youth.

A causal link between the program intervention and the outcomes described by interviewees cannot be established without use of a control group. Other limitations include the fact that our findings are drawn from one afterschool program in one urban setting and so may not be generalized to other settings. In addition, interviewing only parents and staff excluded the youth. Future research could look for the elements of relational-cultural theory in other settings and could include students' perspectives.

Implications for Practice

The quality of the relationships between adults and youth in an afterschool program strongly affects youth engagement and positive outcomes (Eccles & Gootman, 2002; Jones & Deutsch, 2010). To better address the growing disparity of life outcomes for youth of color who live in poverty, the field needs more empirical descriptions of processes that foster the development of mutual relationships. Relational-cultural theory contributes to this empirical knowledge base by providing a blueprint for meaningful relational connection within the human family. The all-white staff of Project YES successfully cultivated strong, transformative relationships with students of color. Though cultural connections are important in adult-youth relationships, particularly in "majority-minority" settings like Project YES (Deutsch & Jones, 2008, p. 673), our findings suggest that a shared culture based on mutual respect and empathy can transcend a culture defined solely by race and ethnicity or socioeconomic class.

Afterschool violence prevention programs that build mutual relationships of support, respect, trust, and empathy can help equalize the systemic educational and economic inequities that still exist for low-income and minority youth. Using relational-cultural theory explicitly to train staff and volunteers to build such mutual relationships could accelerate achievement of that goal.

The staff we interviewed revealed an implicit understanding of relational-cultural theory that guided their interactions with Project YES students. Though we discovered some elements of relational-cultural theory in staff interactions with parents, the evidence was not consistently strong in all five areas. In particular, parents did not report that they themselves experienced increased zest or empowerment because of Project YES. Shifting the program's focus from parent involvement to vital parent engagement could help parents become "citizens in the fullest sense—change agents who can transform urban schools" (Warren & Mapp, 2011, p. 7). Explicitly and intentionally incorporating the elements of relational-cultural theory into program design, training, and evaluation could help achieve this goal. Parent engagement strategies can help to create "a closer cultural match" by providing opportunities for "bidirectional respect" (Deutsch & Jones, 2008, p. 671) based on mutual affiliation and connection.

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empathy can help equalize the systemic educational and economic inequities that still exist for low-income and minority youth. Using relational-cultural theory explicitly to train staff and volunteers to build such mutual relationships could accelerate achievement of that goal.

Implications for Policy Decisions

The ability of relational-cultural practices to bridge gaps of age, race, and class has important policy implications.

First, the pressure on afterschool programs to demonstrate academic outcomes, to the exclusion of more holistic goals, must cease. All youth, and particularly those most at risk, need broadly based programming that includes recreation, food, arts, leadership development, team building, field trips, and so on, as well as academic support. These activities build the kind of relational community that will enhance learning and student success in the long term.

Second, "zero tolerance" and other exclusionary discipline policies that disproportionately affect boys of color—including placing students in special education because they have "behavioral issues"—must be challenged and overturned. As a start, students and parents should have more remedies to appeal such decisions and should have access to free legal support provided by the state or federal government. While waiting for appeals, students must be given tutoring or other academic support so they don't fall behind. Robbing a youth of his education is a virtual guarantee of the success of what Marian Wright Edelman (2011) calls the "cradle to prison pipeline." Consistent pathways to include high-risk youth, rather than excluding them, must be institutionalized. Such pathways can solidify young people's self-efficacy and lifelong engagement in healthy relationships. Celebrating students' gains achieves a similar goal, reinforcing lessons learned in programs like Project YES.

For high-risk youth who live in communities plagued by poverty and violence, afterschool programs must provide a haven that can provide the kind of physical and emotional safety youth need to thrive. Intentionally developing mutual adult-child relationships is one essential cure for "the toxic cocktail of poverty, illiteracy, racial disparities, violence, and massive incarceration" (Edelman, 2011) that derails our young people and contributes to the deterioration of communities and of our nation as a whole.

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A Youth Development Approach to Evaluation

Critical Participatory Action Research

Sarah Zeller-Berkman, Carolina Muñoz-Proto, and María Elena Torre

Across the U.S., youth development approaches are being tested in out-of-school time programs as a strategy to combat the growing opportunity gap between privileged and underprivileged youth (Gardner, Roth, & Brooks-Gunn, 2009). Along with increased recognition of the value of youth development programming has come increased financial support (Padgette, 2003; Zeller-Berkman, 2010).

This investment, in turn, brings increased pressure to continually prove to funders that youth development programs affect student outcomes (Zeller-Berkman, 2010). The increased emphasis on accountability has sometimes forced community-based organizations (CBOs) to maintain a myopic focus on outcomes that are easily measurable but not necessarily the most important (Fusco, Lawrence, Matloff-Nieves, & Ramos, 2013). Underfunded nonprofits can feel overwhelmed by the intense emphasis on producing "evidence-based" outcomes, especially if evaluation feels like an "add-on" rather than being aligned with and integrated into program goals.

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This article raises up critical participatory action research and youth participatory evaluation as possible answers to this challenge. Expanding the definition of evaluation to include methodologies that value youth participation can strengthen CBOs' capacity to create responsive out-of-school time (OST) programs that have meaningful impacts on young people's lives. This article explores how five programs use critical participatory action research and youth participatory evaluation to engage youth and improve program delivery. These trailblazing organizations illuminate the possibilities and challenges of using approaches to research and evaluation that reflect youth development principles and practices.

Participatory Research and Evaluation Approaches

The interdisciplinary and activist history of critical participatory action research stretches back to Kurt Lewin (1946), Paulo Freire (1970), Orlando Fals Borda (1979), and Anisur Rahman (Rahman & Fals Borda, 1991). The participatory approach braids critical social science, self-determination, and liberatory practice in order to interrupt injustice and build community capacity. Those who practice this youth-development-oriented approach bring to their qualitative and quantitative research a commitment to local knowledge and democratic practice (Fals Borda, 1997; Torre, Fine, Stoudt, & Fox, 2012; Zeller-Berkman, 2014). Those who are affected by the topic under investigation are essential partners in the research process. Young people conducting participatory action research in partnership with adults engage in ongoing and sometimes overlapping cycles of fact-finding, planning, action, and reflection (Lewin, 1946). Research teams attempt not only to understand the data, but also to use them to alter the underlying causes of the problem at hand.

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Youth participatory evaluation emerged in the late 1990s as an extension of the field of participatory evaluation. Pioneers in the burgeoning field (Checkoway & Richards-Schuster, 2003; Sabo, 2003) pushed to involve young people as stakeholders in program evaluations. The past decade has brought elaboration on how youth participatory evaluation happens in youth development settings and the benefits that occur when it does (Sabo-Flores, 2008). Such benefits include youth leadership (Camino, 2005); strong youth-adult partnerships (Innovation Center for Community and Youth Development, 2005); and, according to some, more valid and useful research (Calvert, Zeldin, & Weisenbach, 2002; Golombek, 2002; Sabo-Flores, 2008).

Involving youth in critical participatory action research and evaluation builds on young people's strengths, expertise, and ability to create knowledge about the issues and programs that affect their lives. Research is conducted with youth, not on them. Young people are viewed as the experts on their own experiences. They are, in this view, completely capable of exploring youth issues and programs—in fact, they are necessary members of the research team.

This perspective is remarkably well aligned with an assets-based youth development approach. The alignment becomes even more evident in the partnerships formed when young people and adults create research about young people's programs, communities, and experiences. Foundational research in the field of youth development tells us that three major factors in youth development settings foster resilience and enable youth to thrive: caring relationships, high expectations, and opportunities to contribute (Bernard, 1991). A framework currently gaining traction in the field has synthesized decades of research evidence, practice wisdom, and theory to posit that children learn through developmental experiences that combine action and reflection, ideally in the context of caring, trusting relationships with adults (Nagaoka et al., 2015). The cycles of action and reflection of participatory action research, undertaken in respectful partnerships with adults, create ideal conditions for development.

Knowledge production in partnership with young people operates at the intersection of youth development and youth rights (Sabo, 2003; Sabo-Flores, 2008). This crossroads may feel quite comfortable to youth-serving organizations committed to the struggle for equity on behalf of and in partnership with young people. However, though some innovators are engaging in participatory action research in and out of school (Cahill, 2004; Cammarota & Fine, 2008; Kirshner, 2006), the potential for engaging youth in participatory evaluation in OST programs is largely untapped.

Research Design

To uncover the benefits and challenges of engaging youth in participatory evaluation approaches, we studied the experience of staff from five CBOs who attended the five-day summer Critical Participatory Action Research Institute (CPAR Institute) hosted by the Public Science Project in 2012. The Public Science Project has a 15-year history of involving youth as researchers, facilitating vibrant research camps and large-scale youth research projects on issues ranging from policing practices to educational equity. It acts a hub for scholars of critical participatory action research and a training institute for those looking to implement participatory methods in their own contexts (Torre et al., 2012; Zeller-Berkman, 2014). Our five case-study CBOs all followed up on their learning at the institute by incorporating participatory evaluation in their programs.

Of the 45 participants in the 2012 CPAR Institute, 17 were from CBOs or university-CBO partnerships. We invited those who worked in OST and who wanted to engage youth in action research to participate in our study. Eight staff members from five organizations agreed. The five CBOs varied in size, location, and program focus, as summarized in Table 1.

We conducted semi-structured interviews with the eight CBO staff members before they participated in the CPAR Institute. During the institute in June 2012, we conducted ethnographic participant observations. Right after the institute, we facilitated a focus group with seven of the interviewees, representing all five CBOs. We conducted follow-up interviews three to four months after the institute, in fall 2012, reaching six staff members from four of the organizations. Interviews and focus groups were recorded and then transcribed. We analyzed the data using a methodology based in grounded theory (Strauss & Corbin, 1994).

Moving Participatory Evaluation from Theory to Practice

The study participants emphasized that they brought youth-centered and strength-based approaches with them to the CPAR Institute, stressing the role of sports, the arts, culture, families, and civic engagement. However, only two of the five organizations had previously used participatory approaches to teaching and learning, and only one had engaged in participatory research. In the follow-up interviews a few months after the institute, all participants reported having used participatory strategies in program implementation, design, or evaluation.

One participant had incorporated a full participatory action research project into her CBO's youth summer employment program. The project engaged a team of 10 youth in researching young people's experiences of schooling. The study participant, youth outreach coordinator at CBO 4, outlined the process in her follow-up interview:

> We all worked together for 25 hours a week for five weeks. We started off with a research camp kind of curriculum, combined with some curriculum on anti-oppression, work on sexism, racism, things like that.… We did school mapping …with some guided

Table 1. Characteristics of Case Study CBOs

	Description	Location	Population Served	Staff and Partners Interviewed
CBO 1	Multiservice organization	Large city in New York	Low-income youth and their families	Director of program evaluation and planning, evaluation specialist, program analyst
CBO 2	Arts education program	Small city in Virginia	Local youth from diverse backgrounds	Executive director, university-based evaluation partner
CBO 3	Neighborhood-based organization	Small city in Michigan	Immigrant youth and their families	Program director
CBO 4	Family education center	Large city in Minnesota	Immigrant African youth	Youth outreach coordinator
CBO 5	Multiservice youth development organization	Mid-sized city in Connecticut	Low-income and immigrant youth	Youth participatory action research program coordinator

questions, and one was "Where do you feel least safe or where do you feel most safe?" [We] prepped [research camp participants] a lot on interviews. They also interviewed each other a lot to hone in what our first round of interview questions would be.

This intensive first experience with participatory action research brought both challenges and benefits to the organization, as we will discuss below. By a few months after the institute, the other organizations in the study had carried out less intensive but equally innovative attempts at incorporating this approach into their practice. Strategies they used with youth included research camps, mapping exercises, interviews, surveys, critical conversations, and performances or presentations of research findings by youth.

Awareness of how adults and youth can share power led to more intentionality about who took on the evaluation tasks, both large and small—from defining a project's research questions to summarizing the data gathered.

Benefits of Participatory Evaluation

The follow-up interviews revealed four benefits of engaging in research and evaluation processes aligned with the principles of youth development:

- Increased youth engagement and leadership
- Deeper adult-youth partnerships
- Increase in participatory practices across the organization
- Improved quality of the research

Youth Engagement and Leadership

Follow-up interviews revealed that even CBO staff who were already committed to youth leadership were impressed by the effects of critical participatory action research. They saw co-construction of knowledge through research as an effective way to build young people's confidence. For example, the interviewee from CBO 5 said that the approach:

> is very effective at building leadership. My students—in particular several that had for a long time, as far as I can tell, been labeled "unsuccessful" in the classroom and schools and [were] at various levels of marginalization in school—really turned a corner.… [T]hey were able to feel successful in this learning environment we created together, where their knowledge, questions, and opinions were so valued.

This interviewee believed that taking part in critical participatory action research in the OST program built students' confidence in the academic realm as well.

Youth-Adult Partnerships

In follow-up interviews, study participants described how engaging in participatory action research brought changes in the dynamics between young people and adults. Awareness of how adults and youth can share power led to more intentionality about who took on the evaluation tasks, both large and small—from defining a project's research questions to summarizing the data gathered. A staff member from CBO 1 described how this new awareness informed a project in which a team of youth and adult researchers explored the meaning of youth success:

> We were very much focused on always being mindful of our relationship with the participants, and the first day beginning with a very broad question about what is research and who is a researcher.… We were very explicit about opportunities for participation, always looking for ways the young people could [participate] … or anything that we could do to get away from [the adults doing the] talking.… We had one piece where we had identified five subthemes of success we wanted to zero in on, but we had a list of 20 and we gave everyone five stars and they voted.… We would have previously done show of hands, but we did it like that so everyone would have a voice.

Study respondents spoke about how engaging youth in participatory evaluation enabled them not only to relinquish control, but also to collaborate with young people and engage them as both teachers and learners. Some participants, including the program director of CBO 3, said that the CPAR Institute enhanced their commitment to viewing young people as assets: "[The Institute] for me has… enhanced my belief [that youth] are a source of amazing information and that, when we listen, we find out so much."

For program directors, working as full partners with youth and their communities involved questioning their traditional approach to building "clear boundaries" between staff and community members. As one respondent from CBO 1 put it, a participatory approach can clash with the traditional notion that "staff to have very clear bound-

aries so they are not friends, they don't fraternize." In the focus group, several staff members agreed that boundaries can serve as a means of demonstrating "who is in charge" in a youth program. However, they also agreed that boundaries helped staff members feel safe in working with youth and their communities. Organizations that incorporate participatory evaluation may need to reflect on ways to balance the need for healthy boundaries with the need for open communication and mutual trust.

Participatory Approaches Across the Organization

A third theme in the interviews was that participatory approaches offered benefits not just for the OST program and its youth and staff but for the entire CBO. Even when the task at hand was not research, respondents said, they had become more comfortable with letting young people take the lead. Participatory practices and sharing leadership with young people was described by one participant as a "PAR-esque" approach that was seeping into his CBO's culture.

The evaluation director of CBO 1 reported that having integrated youth into critical participatory action research was affecting work with the staff:

> We introduced icebreakers into program meetings, just to chill people out. And then we realized that the icebreakers we were using were really about establishing common ground, so that we would, for instance, have a meeting with the afterschool staff, and the icebreaker was "Tell us about your first involvement with afterschool."…So we all kind of established our stake and that we were all stakeholders in afterschool programs with a lot of commitment to them and perspective. [W]e really have developed this process in these meetings about power relations and establishing common ground and common purpose.

Organizations that incorporate a participatory frame into youth-centered and strengths-based approaches may experience benefits across the entire organization, not just with the youth.

Quality of the Research

A fourth benefit the CBO respondents noted was that the quality of their research improved. CBO staff were committed to participatory practices not only out of idealism, but also because these practices better equipped them to carry out valid research. One respondent mentioned that collaboration with youth on an evaluation survey brought up issues "that would have never come to mind" for the adult staff members. The program coordinator from CBO 5 put it this way:

> A PAR approach has definitely taught me that people who are "the subjects" of the research need to be in the room from the first, including designing what the research questions have to be. I learned that really early on…when we interviewed youth to hire them and we created our questions about school…And they all talked about favoritism. And that, to me, was a great lesson, because if I had designed the interview questions about youth experience, [I] never would have asked about favoritism.

Challenges of Participatory Evaluation

In addition to benefits, the follow-up interviews revealed challenges in involving youth in participatory action research and evaluation. One major challenge is that these approaches take time. One CBO staff member articulated a common issue: feeling torn between being realistic about the workload and being committed to a participatory approach.

> I am very happy with the way [the project] turned out, but it was also a reality check, because it took a lot of our time. And I am here thinking I would not want to do this again until next summer because I have so many other projects on my plate.

The youth outreach coordinator from CBO 4 echoed this sentiment, explaining that the budget and design of her program did not allow for the level of youth participation that would have produced high-quality data. The five weeks allotted for research did not allow the youth to take part in designing data collection instruments, conducting the research, and analyzing the data. This staff member struggled with how much she and the other facilitators should structure the work ahead of time and how much to leave open for the adult-youth team to shape together. She compromised by starting the process with a well-defined topic for the project and with structured workshops that helped the research team come alive. Once the team had agreed on a subtopic and method for the projects, she provided scaffolding and assistance to help the youth complete their goals in the available time.

CBO staff were committed to participatory practices not only out of idealism, but also because these practices better equipped them to carry out valid research.

A second challenge was lack of institutionalization of participatory approaches to program design and evaluation. The executive director of CBO 2 explained:

> I definitely feel reluctant to our kids having to fill out tons of tests like rats in a maze and put them through pre- and post-tests. Honestly, we run on an extremely skinny budget, and we don't have the administrative capacity to administer pre- and post-tests or evaluate them or administer the data.… Not to say we don't want to demonstrate the impact of our program to people, but I am just concerned that funders and foundations are going over the top in creating really unrealistic requirements [for organizations] such as ours, which will be at risk of going out of business because of these requirements. And I think CPAR can perhaps provide tools that are more user-friendly and friendly to the population and that are not viewed punitively.

Clearly this interviewee understands the importance of evaluations that demonstrate program impact. At the same time, the comments reflect a feeling shared by other interviewees that certain approaches to evaluation have negative connotations for CBO staff. This executive director articulates the possibility that youth critical action research can contribute to evaluation that is "more user-friendly" and that, rather than punishing CBOs through funding cuts, promotes a culture of accountability and constant improvement.

Interviewees explained that the transition from providing a one-off participatory project or class to making participatory evaluation a permanent fixture in the organization was hard. Surprisingly, the interviews revealed hopefulness about the coexistence of outcomes-driven evaluation and critical participatory action research. Respondents felt that their CBOs and funders might be more open than they had thought to participatory program design and evaluation.

Evaluation Aligned with Program Goals

The New York-based multiservice organization whose evaluation staff attended the CPAR Institute saw its evaluation culture positively affected by the inclusion of youth perspectives. One benefit reported by this organization's study participants was that program staff took a more active role in the design of evaluation strategies, rather than viewing the evaluation staff as the sole experts. As a result, the evaluation process was enriched by expertise of staff who knew the day-to-day operation of the programs and who had direct contact with youth.

A conversation among focus group participants echoed the idea that using critical participatory action research shifted the culture of evaluation in their organizations:

> *Participant A:* It certainly provided a whole new avenue for how we can make [the evaluation] process more friendly to the participants and align ourselves more with them in ways that engage them and … bring them into a process that demonstrates to them the additional talents they have to help provide insight into why or why not the program is working and improve it…. I think [PAR is] a much improved way of trying to help the entire situation of having to do so much more evaluation these days.
>
> *Participant B:* I think I am very used to the scientific method approach where you go in with a hypothesis. So doing research this way is kind of foreign to me. PAR has made it clear—it is a much more valid form. I always thought so, but until you really see it and really learn about it, it is kind of foreign.
>
> *Participant A:* [The Institute] has helped me to see that [evaluation] can be a very empowering tool versus a very overpowering or dominating, exploitative tool.

This dialogue envisions a scenario in which afterschool program evaluation can not only account for outcomes such as credits gained, but also create space for youth action research projects that influence people and programs. In this youth development approach to evaluation and research, study participants saw a tool that could both build young people's talents and reveal insights to enable program improvement.

Our study suggests that, in order to experience these benefits, CBOs need to provide institutional support for

participatory approaches to design and evaluation. Staff also need to identify the spaces in the organization and its programs where such approaches will be a good fit. Staff from both of the sites that had finished action research projects at the time of the follow-up interview said that their executive directors were open to and supported participatory evaluation. A staffer from CBO 1 described how one program in the organization was open to participatory research while another was rigidly bound to a different approach to evaluation:

> The project in the Bronx received lots of support from the highest levels here. This was included in a packet to one of our major funders this morning, and they were very happy with our organization for promoting youth voice…. On the other hand, we have a lot of pressures going on right now with our child welfare program and evidence-based models.

CBO 2, the other site that had completed a youth action research project, also reported that the work was "pretty well received" in the city's youth affairs agency. This staff member stated that the project "brought a louder voice back to Youth Affairs about the necessity of having more youth involvement at every layer of the organization, having more youth involved in planning our programs." This respondent expressed some frustration that grant applications reinforce top-down hierarchies in youth-adult relationships by, for example, not allowing applicants to identify young people simply as "co-researchers." However, this respondent said, "The foundation we are applying to thinks differently about, and is open in their perspective on, hierarchies in youth-adult collaborations."

The CBO program and evaluation staff in our study saw critical participatory action research as a useful and valid tool. In a funder climate that emphasizes evaluation, the alignment of participatory research with an assets-based approach seems to be attractive to executive directors and evaluation staff who are looking to produce useful and valid data while also developing capacities among staff members and youth. Unlike evaluation processes that are perceived as add-ons or resource drains, youth participatory action research adds value by aligning with and expanding on program goals.

Unleashing a Virtuous Cycle

The youth programs featured in this article highlight the power and potential of using research and evaluation designs that are aligned with positive youth development. These sites have found that involving youth in critical participatory action research can create valid data to drive programs while promoting practices that youth and adults find "user-friendly" and "empowering." Participatory approaches offer CBOs a way to develop research about youth programs that is driven by the youth and communities who are most affected.

While it is not without challenges, participatory action research offers benefits including increased youth engagement and leadership, deeper adult-youth partnerships, an increase in participatory practices across the organization, and greater validity in the research instruments and analyses used for evaluation. These benefits reinforce conditions that enable young people to thrive: partnerships with adults characterized by caring and trusting relationships, high expectations, and multiple opportunities for both generations to contribute to cycles of reflection and action. The study thus suggests that using an evaluation framework that is aligned with the principles of youth development unleashes a virtuous cycle: The evaluative process supports the very outcomes youth development programs are designed to achieve. Though our findings hint at the existence of this virtuous cycle, its process and its implications for program design, implementation, and evaluation must be revealed by further research.

To unleash this virtuous cycle more often, funders need to make an explicit commitment to a youth development approach to research and evaluation. Our interviewees said that their funders and administrators expressed interest in and support for youth involvement in research and evaluation. Though this finding is promising, funders and leaders still need to let youth program staff know that participatory approaches are not only permitted, but valued. Programs need additional funding to support the time and effort it takes to carry out participatory evaluation driven by deep youth-adult partnerships. Similarly, capacity-building support is necessary if our field is to shift the current culture of evaluation to one better aligned with youth development principles and practices.

Increasing funding and building capacity for youth participation in action research will help to institutionalize evaluation approaches aligned with youth development. Capitalizing on these approaches could prove to be a win-win scenario for funders and youth programs who are striving to maximize their impact, shrink the pervasive opportunity gap, and increase youth engagement every step of the way.

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Using Action Research to Engage Youth in Improving OST Programming

Brian Hubbard

Youth are often portrayed as apathetic, uninvolved, and reluctant to participate in their communities (Baizerman, Hildreth, & Roholt, 2013). Ironically, however, communities offer few opportunities for youth to address issues that are compelling to their interests and that engage their commitment and action (Bradford & Cullen, 2012; Sabo-Flores, 2008). Youth are rarely invited into established decision-making structures or trained to participate in them (Baizerman et al., 2013).

In response to this gap, funders and policymakers have increasingly asked youth organizations to involve young people in decision-making processes (Williams, Ferguson, & Yohalem, 2013). Underlying this requirement is the belief that youth participation gives young people voice, builds social capital, and extends their citizenship rights while simultaneously generating knowledge that organizations can use to improve services, programs, political structures, and environments (Kirby, Lanyon, Cronin, & Sinclair, 2003; Percy-Smith, 2007).

As an educator, I have seen the benefits of working with and alongside youth. I have attempted to build cultures of participation with young people and adults in a variety of settings—but I have not always been successful. So I started to wonder how youth participation can have an effect on young people's lives and on their communities.

A critical starting point is that youth organizations must establish policies, structures, and practices that invite and support youth to become involved, along with adults, in decision-making processes. A lack of such structures, or the presence of structures that are

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inflexible, can undermine viable and authentic participation. For example, young people can't attend meetings if organizations hold them during the school day or at other times when youth aren't typically available.

To build a culture of participation, out-of-school time (OST) providers, educators, planners, and advocacy groups need to partner with youth, engaging them in projects that are meaningful to them, to the adults who support them, and to their communities. One means of building such a culture is action-based research. Involving young people in action-based research builds their citizenship skills and their general social competence at school, at work, and in their communities (Paris & Winn, 2014; VeLure Roholt, Baizerman, & Hildreth, 2014).

The need to build a culture of participation was the impetus for an action-based research project I developed with youth ages 15–22 in the Conservation Corps in St. Paul, Minnesota. This work resulted in the creation of the Conservation Corps Youth Council.

Action-based research brings youth and adults together to work collaboratively, using analytical and critical thinking to solve problems (Bradford & Cullen, 2012). The action-based research in which Conservation Corps youth engaged was based on democratic principles and shared power. It drew on a type of informal education called civic youth work, which joins civic education to general democratic social work group practice (Baizerman et al., 2013). As a civic youth worker, my approach was to invite participation in everyday political and civic activities; the formation of the youth council was an example.

When the youth and I worked together to do action-based research, we produced data we could use to reflect on the work, on ourselves, and on our effectiveness. Action-based research facilitated program accountability and improvement. In keeping with the implicit commitment of action-based research to social and cultural justice through inquiry and writing (Paris & Winn, 2014), we used our findings to modify what we did and how we worked. Through this approach, youth generated solutions to common problems that affected our organization and the youths' communities. Such a process can be used for personal and professional development by youth and by adult program staff (Fusco, 2012). Joining the principles and practices of civic youth work to principles of action-based research allows youth voice to be heard (VeLure Roholt et al., 2014).

After introducing the context of the Conservation Corps, this article describes two specific aspects of the action-based research approach: a participatory process and the co-production of necessary and useful knowledge. In the formation of the Conservation Corps Youth Council, action-based research based on these two principles created opportunities for youth and adults to establish authentic, respectful, and understanding relationships, which in turn provided a platform for crucial discussions and joint action. Lessons learned include the challenges of creating and sustaining a youth-adult partnership built on action-based research and recommendations for overcoming those challenges.

The action-based research in which Conservation Corps youth engaged was based on democratic principles and shared power. It drew on a type of informal education called civic youth work, which joins civic education to general democratic social work group practice.

Context

The Conservation Corps is a nonprofit organization that provides hands-on environmental stewardship and service learning opportunities to youth and young adults while accomplishing energy conservation, natural resource management, and emergency response work. The organization has a strong history dating back to the Civilian Conservation Corps in the 1930s (Sommer, 2008). Youth participants in the Conservation Corps Minnesota & Iowa are 15–18-year-old paid employees who work on natural resource management projects in summer or afterschool programs. About 15 percent are deaf or hard of hearing. Conservation Corps youth programs in natural resource management operate throughout Minnesota and neighboring states.

Forming a Youth Council Using Action-Based Research

One organizational goal of the Conservation Corps was to build better collaboration with youth. One strategy toward that goal was to engage the Conservation Corps youth alumni in ongoing service-learning opportunities. To achieve those ends, in 2011 I helped to establish the Conservation Corps' first youth council.

The formation of the council started with a planning phase. First, I worked with three youth alumni and program staff to recruit current participants, program alumni, and AmeriCorps youth workers. Together we developed an

invitation and sent it by email, phone, and social media to more than 200 youth alumni and youth workers.

A total of nine youth alumni and three youth workers from various parts of Minnesota responded to this initial request and attended the first meeting in October 2011. In 2011 and 2012, the council consisted of these 12 active members. Two members were deaf, and three were English language learners. All members volunteered their time to serve on the council. Our meetings were conducted in person, by conference call, and online in order to involve those who could not attend the twice-monthly in-person meetings.

The youth council used a civic youth work approach and action-based research to determine its course, implement activities, and reflect on the work and on our effectiveness.

...we invited youth council members to participate in all stages of research, planning, and decision making. We found that when research and evaluation were done this way, a basic citizen ethos with corresponding skills became a part of informed civic action.

The Participatory Process

The Conservation Corps Youth Council is based on the principles of collaboration and cooperation. I worked together with council members, youth workers, and program staff to co-create pathways for decision making in the organization. We engaged Conservation Corps alumni in the everyday work of the council: They wrote newsletters, press releases, and articles; produced video, website, and social media content; conducted evaluation activities; engaged in planning and problem solving; and participated in environmental restoration projects to support the mission and values of the Conservation Corps.

In designing action-based research projects with the Conservation Corps Youth Council, our base value was youth voice. Therefore we invited youth council members to participate in all stages of research, planning, and decision making. We found that when research and evaluation were done this way, a basic citizen ethos with corresponding skills became a part of informed civic action. We created a council whose mission was to build better collaboration with youth alumni in ongoing service-learning opportunities. This process is especially important to imagine, design, and implement with young people because it can contribute not only to the organization's goals but also to young people's citizen skills and their general social competence. Inquiry and knowledge development became citizenship skills that formed the framework for our civic youth work.

An example of youth voice was the way we co-created the guidelines of the Conservation Corps Youth Council in three meetings. The group used these guidelines to promote democratic approaches to choosing projects, setting agendas, achieving group consensus, building and sustaining the council, planning strategies, and communicating with the Conservation Corps about what the group was doing. Though creation of guidelines with youth is not a new concept in OST (Jeffs & Smith, 2010), the civic youth work approach to co-creating guidelines looks to identify the fundamental skills, knowledge, and experiences needed by youth and adults working together to play meaningful and powerful roles in planning, design, and implementation (Checkoway & Richards-Schuster, 2004). The guidelines, constructed through a participatory process, focused on the co-production of necessary and useful knowledge.

Another example is when council members planned and implemented a trash cleanup in 2013 to benefit the Mississippi River watershed in St. Paul. Council members invited youth program alumni, friends, and family of the Conservation Corps to participate. Prior to the cleanup, council members surveyed neighborhoods to identify high-need areas near the watershed. During the event, council members took photographs of the areas before and after they were cleaned up. Afterward, a council member wrote a news article that was featured on the Conservation Corps website.

Co-Production of Knowledge

A common practice in OST is to have youth fill out questionnaires or surveys; adults then use the results to drive program development. Typically, youth are not invited to contribute once they have filled out the survey. They are not invited to be strategic partners with the adults, nor to engage in critical analysis of relevant issues.

In a more participatory model, youth and adults work together to produce knowledge, identify outcomes, design programs, and evaluate effectiveness. The Conservation Corps Youth Council used action-based research to involve youth and adults together in identifying issues. This approach values empowerment and the co-production of knowledge by youth and adults. Youth council members and Conservation Corps program staff worked together in intergenerational relationships as participant-researchers on topics of mutual concern.

For example, youth council members created an interview protocol to contribute to the evaluation of the Conservation Corps youth program. Council members interviewed program participants, youth workers, staff members, and members of the board of directors to explore their perceptions and experiences of the organization's youth programming. The findings of these interviews gave council members data on what various groups of stakeholders thought about specific programs and how these programs helped the Conservation Corps achieve its goals and objectives, in a process like that outlined by Sabo-Flores (2008). The data helped us evaluate each program: Did it work? For whom? With what results?

Typically the council worked together to identify some goals we hoped youth would achieve. Next, we matched those goals with youth quotes from interviews. When adults and youth worked together to link comments to goals, we identified best practices, issues or problems, and possible future goals.

Once data collection and analysis were completed, council members prepared the data for presentation to the Conservation Corps staff and board. These interviews and data presentations increased reflective dialogue among the youth, staff, and board of the Conservation Corps. Council members were invited to present their findings at Conservation Corp staff meetings, where youth workers listened and then asked questions to better understand the findings. Youth council members also published articles and videos about their findings on the Conservation Corps official website.

Council members talked about the value of action-based research projects. One council member explained:

> By looking at the data together, we were able to see how the different groups, such as Conservation Corps youth participants, the board of directors, and youth workers, responded differently to our questions. The data showed us a difference in what people think the youth participants get out of the program, which is different from [the youths'] lived experience of the programs. Through our research and presenting the data, we were able to show that further training was needed.

Benefits and Challenges of Action-Based Research

The benefits of using action-based research to engage youth in program improvement are evident in what youth council members have gotten out of their use of the interview protocol they designed. As a result of this work, council members say they have improved their social competence at school, at work, in their communities, and at home. For example, one deaf council member participated in conducting the interviews with an American Sign Language interpreter and produced a video summarizing the data collected. Before making this video, this council member had no interviewing or video editing experience. The skills she acquired inspired her to pursue higher education in digital communications and media. A second council member entered the University of Minnesota's youth studies program to prepare for a youth work career. Before her council experience, she had not thought of youth work as a potential career and was not aware of the youth studies program.

The Conservation Corps Youth Council pushed beyond individual action-based research projects to begin to co-create a culture of participation. In the past, program staff made decisions about programming. The youth council's success in planning research, evaluating programs, and writing up its findings provided an opportunity to work together that wasn't present before.

We have a lot to learn: often-difficult lessons on how to be a good adult partner and facilitator when collaborating with young people to effect systematic changes in the organizations and institutions that affect our lives.

To support youth involvement in the Conservation Corps Youth Council meetings, facilitators learned that they needed to work with program staff and council members before, during, and after meetings, using action-based research practices and an evaluation orientation. For example, before the meetings, each group needed to be prompted with questions to discuss at the meeting. During the meetings, facilitators helped the groups focus on the interview protocol and goals developed by council members. This work was the impetus for additional meetings to support future training for youth workers, the council, and the organization. The evaluative nature of this research increased collaboration between staff and youth council members.

One of the hardest parts of facilitating action-based research to engage youth in program improvement is the development of adults. I include myself in this assessment. We have a lot to learn: often-difficult lessons on how to be a good adult partner and facilitator when collaborating with young people to effect systematic changes in the organizations and institutions that affect our lives. The first step in this adult development process is explaining clearly to all stakeholders the reasons that youth participation in action-based research is valuable to the program. In addition, organizations that are serious about youth participation need to foster staff development that includes youth involvement and can help to support a council's

growth. One strategy is to invite staff to participate regularly in youth-driven meetings, activities, and projects in all stages of development. Facilitators of a youth council should also be kept informed about opportunities to partner on projects that can benefit both the youth council and the organization.

In order to accomplish action-based research, youth are likely to need to develop their capacities to make decisions in many areas, including work interests and use of discretionary time (Konopka, 1973). They will need practical learning opportunities. The job of the facilitator is to issue continual invitations to examine ideas and projects the group is interested in pursuing. Rather than creating training sessions for youth members in advance, the facilitator must work with the group to decide if training is needed to ensure the success of the project. We learned that we cannot repeat past successes with past techniques—which means that adults can't organize educational events in advance. We can't organize the process until we are in it and all group members have brought their unique contributions (Dennison, 1999). Certainly we can prepare and plan in advance, but the meetings need to allow flexibility and spontaneity so collaboration between youth and adults can be fruitful.

The Conservation Corps Youth Council continues its work of planning specific projects and evaluating their effectiveness. It continues to engage Conservation Corps alumni in its everyday work. All this is done in processes that support the mission and values of the Conservation Corps and of civic youth work as described by VeLure Roholt and colleagues (2014). The importance of this work is highlighted by the fact that facilitation of the youth council has been written into a staff position description.

Action-based research has proven to be effective in facilitating inquiry, knowledge building, and use of the resulting data. When implemented by a civic youth worker in concert with young people, action-based research can provide data for program development and evaluation while, at the same time, teaching young people citizenship skills: thinking, analyzing, organizing, and acting on issues of importance and interest to them.

As the challenges facing our communities become more global and complex, we need to encourage and motivate young people to exercise real citizenship (Checkoway & Richards-Schuster, 2004). Action-based research can be a platform for democracy in action, engaging youth and adults in discussions that lead to collaborative work on common issues in order to improve their lives and the life of their communities. Such engagement is an important antidote to the image of youth as apathetic. Young people are allies in crucial discussions and joint action on problems that affect our communities. When we treat young people as part of the solution, we encourage positive behavior on the part of both youth and adults.

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Research-Based Practices in Afterschool Mentoring Programs

Sara C. McDaniel, Anna-Margaret Yarbrough, and Kevin Besnoy

Most communities have afterschool programs that give school-aged students a safe place to go after the dismissal bell rings. The next step after simply providing a safe haven is to create a nurturing environment that develops young people's talents and supports their needs. A formal mentoring program can help to achieve this goal.

Even before Big Brothers Big Sisters of America or Boys & Girls Clubs, informal, community-based mentoring activities have built youth-adult relationships and improved youth outcomes. More recently, structured mentoring programs have been implemented in school- and community-based afterschool programs (McDaniel & Yarbrough, 2015). However, the adoption of formal mentoring programs and components in afterschool settings has not been accompanied by evidence-based recommendations for developing and improving these programs.

In order to achieve the intended student outcomes, afterschool practitioners need to understand what makes mentoring models effective. To foster that understanding, we conducted a systematic review of the literature related to structured afterschool mentoring programs. Our study uncovered seven components and six activities proven through empirical research to be effective in formal afterschool mentoring programs.

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Our search also revealed descriptions of three afterschool mentoring programs that effectively implement several of these components and activities.

The Basics of Afterschool Mentoring Programs

Mentoring involves a non-parental adult working directly with a young person to develop a personal connection that aids in improving that youth's outcomes (Converse & Lignugaris/Kraft, 2009). Afterschool settings with formal mentoring programs or mentoring components typically match students who have demonstrated academic, social, or behavioral problems with a responsible, caring adult; adult and student then engage in planned interactions according to a structured schedule. Grossman and Bulle (2006) point out that mentoring afterschool programs can vary widely: They may be school- or community-based, formal or informal. They may feature one-on-one or group mentoring, either as the primary intervention or as a component of a larger intervention in a broad-based afterschool program. Finally, mentors and mentees may be matched according to their characteristics or interests (Grossman & Bulle, 2006).

Regardless of their specific format, the mentor-mentee relationships that positively affect youth are characterized by trust, mutuality, and empathy (Rhodes, Reddy, Roffman, & Grossman, 2005). Youth who develop a sustained trust-based relationship with a caring non-parental adult demonstrate improvements in social, emotional, and behavioral domains (Hamre & Pianta, 2001). Additionally, meaningful relationships are a powerful factor in promoting resilience for students with risk factors (Laursen, 2002) and can promote improved academic achievement outcomes.

Youth who develop a sustained trust-based relationship with a caring non-parental adult demonstrate improvements in social, emotional, and behavioral domains.

Structured, formal mentoring programs designed to improve student outcomes differ from informal relationship-building activities, yet both focus on promoting and sustaining positive mentor-mentee interactions. In a review of effective afterschool program practices, Beck (1999) highlighted six factors that promote effectiveness in afterschool mentoring: structure, support for academic achievement, cultural consistency, reliable adult participation, child-centered leadership, and program safety. Research has documented the need for structure in afterschool programs (Rorie, Gottfredson, Cross, Wilson, & Connell, 2011). Causes for the failure of mentor relationships include discontinuation by either the mentor or the mentee, inadequate formal support for mentors, and lack of program support (Spencer, 2007).

Based on the research documenting the importance of structured mentoring relationships, we limited our literature review to research on afterschool programs with formal mentoring components and comprehensive mentoring programs. We did not include informal relationship-building components in afterschool programs generally.

Method

To identify examples of effective structured afterschool mentoring programs and effective mentoring elements, we began with a comprehensive search of literature published between 2002 and 2013 in peer-reviewed journals, using the EBSCO database. Our search terms were *mentoring* plus one of the following: *extended day, after school, after-school,* or *afterschool*. We used the term *mentoring* in order to identify research on formal mentoring programs but not informal relationship-building opportunities. The second set of terms limited the search to formal mentoring in afterschool programs, not during the school day. In this initial search, we identified 1,152 articles.

To narrow the scope of the review, we used pre-determined criteria to help us identify articles that could guide practice. First, we made sure that the articles described programs with true mentoring components, in which mentors were formally matched to mentees. We excluded informal mentoring situations in which adults simply supervised young people. This criterion reduced the number of articles to 232.

Next, we looked for articles that provided empirical evidence of effectiveness through experimental or qualitative research. Most of the 232 articles were simply descriptions of programs and program components whose student outcomes had not been measured. After we applied this final criterion, we had 16 peer-reviewed articles published between 2002 and 2013. Of these, 13 highlighted effective mentoring components of broadly based afterschool programs, and three described effective afterschool programs in which mentoring was the main intervention.

Our findings from these 16 articles lead to the recommendations below for developing and improving

afterschool mentoring efforts. First we describe the seven effective mentoring components revealed by these articles. Next come six mentoring activities that have proven their effectiveness. Then we describe the three afterschool mentoring programs, which use many of the effective components and activities. Finally, we synthesize these findings to list recommended practices for afterschool mentoring programs.

Effective Mentoring Components

Because our review encompassed only articles that included measures of effectiveness, the mentoring components described in these articles identify best practices for afterschool mentoring programs. The seven mentoring components are:

1. Support and training for mentors
2. Matching mentors with mentees by race and gender
3. Targeted recruitment of mentees who particularly need intervention
4. Group mentoring
5. Cross-age peer mentoring
6. A perspective that sees the afterschool club as "home"
7. Customized programming that uses local resources

Support and Training for Mentors

Effective afterschool programs plan for and implement support and training for adult staff. Similarly, they should also support and train mentors (Smith, 2011). Training should include a description of the program's purpose, target student population, and procedures. It should also cover a partnership agreement and provide guidance on common issues in mentoring relationships. After training, afterschool programs should give mentors time for planning and reflection. A project coordinator should provide ongoing support: helping to resolve mentor-mentee relationship issues, encouraging participation, reinforcing good behavior, and teaching mentors new strategies. Such support promotes consistency and ensures the integrity of the program's implementation while supporting mentor retention.

Matching by Race and Gender

Mentoring programs often aim to support a specific population of young people, such as African-American students or females. Our literature review suggests that, when programs target specific student populations, they should intentionally match mentors to their mentees by race and gender (Hanlon, Simon, O'Grady, Carswell, & Callaman, 2013). Matching mentees to similar mentors increases the relevance of the mentors' support and promotes positive, successful mentor-mentee relationships.

Targeted Recruitment of Mentees

Although students of many ages and backgrounds benefit from afterschool programs in general, students who are struggling or failing in school particularly need to be recruited into afterschool mentoring programs. Our literature review highlights a particular need for mentoring in urban programs for at-risk youth (Carswell, Hanlon, O'Grady, Watts, & Pothong, 2009; Petitpas, Van Raalte, Corenelius, & Presbrey, 2004). Because afterschool mentoring programs can be particularly beneficial for struggling students, students who need intervention to prevent negative outcomes should be directly targeted with afterschool mentoring programs.

Group Mentoring

Mentoring programs can be resource intensive; meanwhile, finding effective, dependable mentors can be difficult. While most mentoring models involve a one-to-one mentor-mentee relationship, the literature we reviewed supports the use of group mentoring. Group mentoring models decrease the number of mentors needed while maintaining program effectiveness (Hanlon et al., 2013; Smith, 2011). The literature we reviewed found several afterschool group mentoring programs to be effective. For instance, Carswell and colleagues (2009) implemented a targeted mentoring intervention for high-risk African American urban youth. Group mentoring programs typically connect a small group of four to six students with one mentor. As in individual mentoring programs, mentors and mentees meet with established intention on a regular schedule. Afterschool programs are conducive to group mentoring because a common meeting place and time have already been established.

Cross-Age Peer Mentoring

Cross-age peer mentoring, in which the mentor is a young person rather than an adult, is another strategy for decreasing the number of adult mentors needed for an afterschool mentoring program. Peer mentors are typically older than their mentees; for example, high school mentors might be paired with elementary students. Our literature review indicated that cross-age peers can be as effective as adult mentors, if not more so. For instance, Herrera, Grossman, Kauh, & McMaken (2011) implemented a peer mentoring program where

the mentor was a university student and the mentees were students identified as being at risk for school failure. Peer mentoring can benefit not only the mentees but also the peer mentors (Herrera et al., 2011). In some programs, peer mentors themselves receive support from an older mentor.

Club as Home

A warm, inviting environment can make the afterschool club feel like home. This perception depends on the intensive relationship building that characterizes effective afterschool mentoring programs (Jones & Deutsch, 2010). When afterschool settings promote supportive, compassionate mentoring, mentees feel familiar and comfortable with the location, resources, staff, and other students.

Customized Programming Using Local Resources

Some mentoring characteristics and activities are pre-determined for use by afterschool programs across communities. For instance, national afterschool programs such as Big Brothers Big Sisters or the sports program described by Petitpas and colleagues (2004) supply broad activity guidelines and structures to local programs. However, individual programs should also use local resources to supplement such programming and customize it to their communities (Petitpas et al., 2004). Examples of local resources that can be integrated into national afterschool programs include university support, case management, and community activities This approach has demonstrated effectiveness in providing mentoring programs for local students. It also promotes a community of care for struggling students.

Effective Mentoring Activities

In addition to mentoring program components, our search of the literature yielded examples of six specific mentoring activities that have been shown to have a positive effect in afterschool programs:

1. Authentic activities aligned with interests common to both mentor and mentee
2. Tutoring or remediation of academic skills
3. Health promotion
4. Sports
5. Apprenticeship of discrete skills
6. Ethnic identity development

Providing authentic activities that involve interests common to both mentor and mentee is aligned with the practice of matching mentors and mentees based on gender and race. Common interests around which afterschool activities might be built include computers, electronic games, sports, or a subject area such as science. Activities based on common interests allow mentor and mentee to work on something they both enjoy. The shared focus serves as a foundation on which to build the relationship (Denner, Meyer, & Bean, 2005; Hanlon et al., 2013).

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Another effective activity for mentors and mentees in afterschool programs is academic tutoring or remediation of skill deficits (Hanlon et al., 2013; Riggs & Greenberg, 2004; Saddler & Staulters, 2008). Mentors might provide homework help, instruction in a discrete skill such as multiplication, or remediation of a specific skill such as reading.

Several afterschool mentoring programs described in the literature we reviewed included a health promotion focus, which was effective in improving students' perceptions and habits (Bruening, 2009; Smith, 2011). The mentors in these programs followed scripted programs to educate mentees on such topics as proper nutrition and exercise, encouraging mentees to make healthy, positive choices.

Similarly, several afterschool mentoring programs focused on using sports to build mentor-mentee relationships similar to coach-athlete relationships. Sporting activities combine mentee interests with healthy exercise while fostering a positive mentor-mentee rapport (Bruening, 2009; Petitpas et al., 2004).

Apprenticeship mentoring activities integrate common interests and skill building, forming a task-focused relationship between the mentor and the mentee (Halpern, 2006). For instance, Clark and Sheridan (2010) implemented an afterschool mentoring program

that trained mentees to improve their skills in software game design and animation through collaboration with mentors at an afterschool clubhouse.

Finally, afterschool mentoring programs that include ethnic or personal identity development have also been found to be effective (Hanlon et al., 2013; Riggs & Greenberg, 2004). These programs provide explicit instruction related to mentees' ethnic identity, such as African-American heritage, and support personal traits associated with the best aspects of that culture. Personal and ethnic identity development programs incorporate mentor-mentee matching and activities of common interest to support personal growth.

Model Afterschool Mentoring Programs

Our review of the literature yielded three examples of comprehensive afterschool mentoring programs that integrated several of the effective components and activities described above. All three programs were proven through quantitative or qualitative evaluation to have a positive effect on student outcomes.

University and Community-Based Partnership

Grineski (2003) describes a partnership between a university and a community-based organization that paired third-year education students with local youth ages 9–13 years old. Youth participants were recruited from low-income neighborhoods, in keeping with the targeted recruitment component described above. As recommended in the literature, mentors were supported not only by their university coursework but also by training and ongoing discussions with the university mentoring program coordinator (Grineski, 2003).

Many of the program activities Grineski (2003) describes match the activities shown to be effective in the literature. Mentees, who participated in a broad-based afterschool program, met once a week with their mentors, with whom they were matched by race and gender. During their time together, mentors and mentees participated in activities including not only academic tutoring and homework help but also child-driven, mutually agreed recreational activities such as ice skating and bowling. Additionally, mentors and mentees attended special events including campus carnivals and community tours. The partnership used local resources, such as a healthy community initiative, city recreation and police departments, nonprofit organizations, and local businesses. A caring atmosphere made the club feel like home. Mentors met with families of their mentees to understand the contexts that shaped the students' lives (Grineski, 2003).

The program's effectiveness was evaluated by measuring student outcomes (Grineski, 2003). Qualitative data and surveys of both mentor and mentee experiences provided the methodological framework to gauge the effectiveness of the program. Another survey examined student decision-making skills. Mentees wrote reflections that gave information to program coordinators and the class professor about program effectiveness. All mentees said on their surveys that they felt better about themselves because of their mentors, and 95 percent of the college students felt better about themselves because of their mentoring work (Grineski, 2003).

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Afterschool Program for Latino/a Students

The group mentoring program described by Diversi and Mecham (2005) aimed to empower adolescents to find academic success while embracing their bicultural identity. Meeting after school twice a week for 1.5 hours, 20–25 students in grades 8 and 9 were mentored by four or five college students in small groups. Recruitment targeted students who had academic or behavioral issues at school. Mentors promoted academic achievement by providing help with homework and school projects. They also worked with mentees to identify activities to develop acculturation and heighten their awareness of biculturalism, race, and history. Discussions included topics such as code switching, the culture of rap, and "Spanglish." Additionally, mentors and mentees participated in community life with activities such as hiking, camping, and attending festivals. The structure of the program was adult-driven, with support for the mentors, while the mentoring activities were youth-driven, tapping common interests. Training for mentors included exploration of such topics as adolescent development, ethnicity, immigration, and acculturation. This afterschool mentoring program adhered to the "club as home" approach by promoting a sense of belonging and openness (Diversi & Mecham, 2005).

Diversi and Mecham (2005) used an ethnographic method to analyze effectiveness. Those leading the study used participant observation and action research to analyze the adult-youth relationships. Additionally, mentors participated in group and individual interviews, observation, and reflective essays that provided qualitative data to show the effectiveness of the adult-youth partnership in empowering Latino/a youth. Program results showed that youth found trust and satisfaction in their relationship. Additionally, program coordinators saw improvement in youths' grades, an increase in homework completion, and improvement in interpersonal communicative skills and academic language proficiency (Diversi & Mecham, 2005).

Young Women Leaders Program

A study by Denner and colleagues examined the effectiveness of a program that aimed to develop female leaders through one-on-one mentoring and a structured group format. The program paired female college mentors with seventh-grade girls. School personnel nominated mentees who were struggling academically, socio-emotionally, or behaviorally but who showed leadership potential. College women applied for the program and were selected by university personnel (Denner et al., 2005).

Mentor-mentee pairs were placed in groups of up to ten pairs based on schedules, interests, and racial and ethnic diversity. These groups met weekly at the students' school for structured group sessions led by experienced facilitators. Both facilitators and mentors took a class on working with adolescent girls and received ongoing training and support. The mentoring activities included promotion of female empowerment, a naturally occurring common interest between mentors and mentees who were all female. Additionally, mentees participated in identity development activities promoting partnerships, engagement, and personal expression. Mentors also met one-on-one with their mentees outside of this group time. During the year of the study, mentor-mentee pairs spent an average of 25 hours in their groups and 20 hours outside of the groups (Denner et al., 2005).

The mixed-method study conducted by Denner and colleagues (2005) analyzed relationship quality, group experience, trust building, and effective practices, using such methods as anecdotal notes, responses to an end-of-program essay, and structured interviews with mentees. This collection of data yielded important emerging themes regarding the afterschool mentoring program and relationships between mentors and mentees. The two primary themes were "guidance, not instruction" and "creating a place to be authentic" (Denner et al., 2005). From these two primary themes emerged seven recommended practices on how to promote strong mentor-mentee relationships that empower young women. These practices include establishing a safe environment, providing varying leadership styles, incorporating mentee interests and choices, creating a climate in which everyone's voice can be heard and respected, and ensuring that mentors are open to discussing personal challenges and issues with mentees.

Recommended Practices

This review of the afterschool mentoring literature base highlights specific mentoring components, activities, and program models. The findings can inform future program development and help practitioners improve existing programs and program evaluation practices.

Given the paucity of literature that includes outcome measures, the first recommendation is to improve the measurement of the effectiveness of mentoring programs. Relevant and reliable quantitative indicators of student outcomes include academic achievement, occurrences of discipline, school attendance, and teacher ratings of student behavior. In addition, qualitative methodologies allow researchers to evaluate the effectiveness of mentoring programs or components through interviews and observations.

The findings also suggest that afterschool mentoring programs require program evaluation and improvement in order to align with the effective components and activities revealed in the literature.

The next set of recommended practices is for afterschool mentoring programs to include as many of the seven effective components and six effective activities as possible, while eliminating contrary practices. Such practices as support and training for mentors, recruitment of mentees based on a need for prevention or intervention, a formal matching process by race and gender, student-driven group or individual mentoring activities, and a "club as home" environment, along with individualized programming and cross-age mentoring, have demonstrated their effectiveness in afterschool mentoring programs.

The findings also suggest that afterschool mentoring programs require program evaluation and improvement

in order to align with the effective components and activities revealed in the literature. There is a growing emphasis today on evaluation of afterschool programs (Huang, Cho, Mostafavi, & Nam, 2010). Ongoing evaluation enables programs to improve and grow (Huang & Dietel, 2011). Either internal or external evaluation can be used to assess the effectiveness of afterschool programming (Huang et al., 2010). Internal evaluation, which can be formal or informal, can include conversations with students, parents, and staff in addition to collection of test scores, attendance records, and grades. A more formal internal evaluation may also include surveys of participant satisfaction, pre- and post-participation testing, and assessment of staff. University researchers or private evaluation organizations can perform external evaluations, so that the information is gathered by outsiders who can conduct an unbiased evaluation rather than by program staff. Whether internal or external, evaluations provide necessary information on the program's success in terms of students' academic progress and enjoyment of the program (Huang & Dietel, 2011).

On completion of the evaluation, program leaders should begin planning for improvement and sustainability, determining the resources necessary to enhance program effectiveness and addressing feasibility. For example, an afterschool mentoring program might conduct an evaluation that includes mentor and mentee surveys and comparison of student grades before and after program completion. If the evaluation finds that mentees felt abandoned and that grades did not change over time, program leaders should assess the program's alignment with the components identified as effective in the literature and develop a plan to improve implementation of the components that are not being carried out with integrity. Similarly, if a program began with the premise that mentors would determine the activities in which they engage with mentees, the program evaluation might show that mentees were not motivated to participate and did not relate with their mentors. That program might then consider the list of effective mentoring activities and modify the model to include student-driven, mutually agreed upon activities of interest to both mentors and mentees.

Today's youth need adult guidance to navigate an often complicated society and their transition into adulthood. Formal, structured afterschool mentoring programs can help them develop academic skills, build relationships, improve social capital, and improve behavioral and social outcomes. The seven effective program components, six types of effective activities, and three models of comprehensive afterschool mentoring programs highlighted in this literature review provide a basis for practices in program development, evaluation, and improvement that can enhance student outcomes.

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Bringing in the Tech:

Using Outside Expertise to Enhance Technology Learning in Youth Programs

Thomas Akiva, Kaleen Tison Povis, and Ani Martinez

Afterschool continues to be promoted as a complementary setting to school for strengthening science, technology, engineering, and math (STEM) education (for example, Krishnamurthi, Bevan, Rinehart, & Coulon, 2013). This is a reasonable idea: 10.2 million children and youth in the U.S. participate in structured afterschool programs (Afterschool Alliance, 2014), and the flexibility of afterschool settings allows for innovative approaches to STEM exploration and engagement.

Without the curricular constraints of school, afterschool has great potential to expose youth to new ideas or to old ideas in novel, engaging ways. As Freeman, Dorph, and Chi (2009) suggest, afterschool can "generate interest, engagement, and capacity to know and do science" (p. 2).

One area where afterschool may contribute to novel and engaging education is new technologies. Digital literacy skills—the ability to navigate, evaluate, analyze, communicate, and create information using digital technologies—are increasingly critical for success (Jenkins, 2009). Technology, the "T" of STEM, is broadly applicable in today's world and will only grow in importance as innovation continues. Regardless of how many youth enter technology jobs—one primary rationale for the STEM education push—enhancing digital literacies is good for the populace.

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However, technology is less commonly seen in afterschool than science or math. In the Afterschool Alliance's (2014) recent panel study, 69 percent of parents with children or youth in afterschool reported that they encountered STEM learning, but only 30 percent said that their program offered technology and engineering. One reason for this finding may be that youth workers often do not have the technology expertise required to produce high-quality learning in digital literacy (Freeman et al., 2009).

If technology content in afterschool is desirable, but existing staff and systems are not prepared to deliver it, complementary services may be a viable way to provide that expertise. This article explores what we call "insert programs": the increasingly common practice in which an outside provider brings facilitators, content, and (usually) curriculum into an existing afterschool program. We use this term to distinguish *insert programs* from broader arrangements such as *partnerships* and *vendor relationships*.

Using insert programs to bring expertise into educational spaces may have wide-ranging benefits. However, it raises important questions about adult recruitment, professional development, and program implementation. This article presents a case study of an insert program that brings technology learning to afterschool programs. The content is computer programming, robotics, and web development. The outside provider recruits and trains adults to provide technological expertise. This case study highlights the promise of insert programs in STEM and other content areas while also revealing important challenges in implementation.

Bringing adults with content expertise into educational settings is not a new idea. Scientists have been visiting school classrooms for one-time demonstrations or activities for decades, though research on the effectiveness of such visits is rare.

Bringing in Outside Expertise

Bringing adults with content expertise into educational settings is not a new idea. Scientists have been visiting school classrooms for one-time demonstrations or activities for decades, though research on the effectiveness of such visits is rare (Laursen, Liston, Thiry, & Graf, 2007). Bringing teaching artists into classrooms or afterschool settings is also a common practice with a long history. A recent large-scale study found that teaching artists often bring innovative, student-centered practices into school classrooms (Rabkin, Reynolds, Hedberg, & Shelby, 2011).

Insert programs are common in 21st Century Community Learning Centers (CCLCs), the federal funding stream for afterschool programs. In the only study we could locate about this topic specifically, Smith and Van Egeren (2008) investigated partnerships in 21st CCLCs in Michigan. Across 163 sites, partner staff delivered 30 percent of all activities, sometimes together with site staff. Technology was offered by partner staff less often than any other activity type—in only 10 percent of sites where full management was not outsourced, as compared to 26 percent for arts activities. Supports and professional development for the insert program providers varied widely.

In Palm Beach County, insert programs are called "enhancements" or "extended learning opportunities"; they are an important component of a large and well-studied afterschool system. (For summaries of this countywide system, see Sinisterra & Baker, 2010; Smith, Akiva, Blazevski, Devaney, & Pelle, 2008). Afterschool providers in the county select enhancement providers from a menu of offerings. In 2008–2009, 14 organizations provided nearly 1,800 enhancements for children in 134 afterschool programs (Baker, Spielberger, Lockaby, & Guterman, 2010). The countywide intermediary organization manages this system. Enhancements are well received by providers and children, and demand outstrips supply (Baker et al., 2010).

Involving professionals in STEM activities for youth is also not a rare practice. Gamse, Martinez, Bozzi, and Didriksen (2014) identified 29 research papers published since 2000 that evaluate the effectiveness of educational programs, both in and out school, in which STEM professionals worked directly with children or youth. However, most of these studies did not feature rigorous designs, and their conclusions call for more research. In addition, the research on insert programs so far has paid little attention to professional development for the adults who interact with children and youth.

The Digital Corps Initiative

The Remake Learning Digital Corps, coordinated by the Sprout Fund and funded by the Grable Foundation, is designed to enable digital-savvy adults to conduct technology-based workshops in afterschool programs in Pittsburgh. Digital Corps operates at no cost to host sites

and provides stipends for corps members. Adults with technology expertise are hired as corps members, trained to deliver particular technology-based content, and then deployed to lead multi-session workshops for tweens and teens. The Digital Corps launched in winter 2014 and, at the time of this writing, is in its fourth round, with a growing body of corps members (43) and outreach sites (25) and with an expanded tool kit of digital technologies. The curriculum now includes three distinct tracks:

- Webmaking uses storytelling-driven content to help students learn web development using such tools as Mozilla Webmaker and Thimble.
- Mobile Media focuses on creative media and developing applications for Android devices using MIT's App Inventor.
- Creative Computing explores visual programming and robotics using MIT's Scratch tool and the Hummingbird Robotics Kit.

Digital Corps operates in partnership with Allegheny Partners for Out-of-School-Time (APOST), the local youth program intermediary organization. APOST helps identify afterschool sites to host Digital Corps; it also provides introductory training in positive youth development, physical space for training, and ongoing consultation about operating afterschool programs. The ways in which Digital Corps and APOST collaborate is illustrated in Figure 1, which also shows the alignment of specific processes to the research questions discussed in the next section.

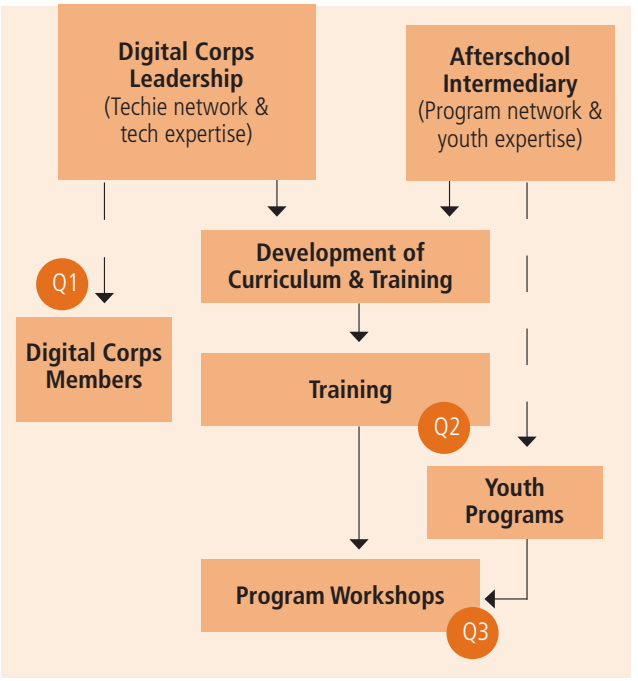


Figure 1. Flowchart of the Digital Corps Model

Methods

Funded by an Edmund A. Stanley, Jr., Research Grant from the Robert Bowne Foundation, we used the Digital Corps insert program as a case study to address important basic questions about providing STEM activities in afterschool programs. One of the authors of this paper, Ani Martinez, is the program coordinator; the other two are university researchers. To closely follow the recruitment of professionals who would lend their expertise in afterschool programs, their professional development, and the quality of the afterschool workshops they led, we worked alongside Digital Corps leaders as participant-observers. Once the Digital Corps members were active in sites, we sat in on youth workshops at various afterschool programs and gave corps members opportunities to reflect on their experiences through surveys, roundtable reflections, and interviews.

We sought to answer three main questions, which are aligned with three processes depicted in Figure 1. Each question has a version that is applicable to insert programs generally and a version that is specific to Digital Corps and our case study, as shown in Table 1.

We employed a mixed-methods approach, collecting artifacts such as recruitment materials, administering entry ($N = 28$) and end-of-session ($N = 27$) questionnaires to Digital Corps members, participating in professional development and soliciting feedback through surveys ($N = 79$) on each training session, attending three roundtable reflection sessions with a total of 20 participants, and conducting exit interviews with 12 corps members. We also observed four teen workshops and collected an in-program survey from 176 teens. Data were compiled, analyzed, and reported back to the program coordinator throughout the process to inform program improvements. Analyses were primarily qualitative, involving thematic coding of data. Basic quantitative analyses served to inform our qualitative analysis.

Case Study Findings

This presentation of our results is organized by the case study questions (Table 1). The following section discusses the general research questions.

Question 1: Can We Build a Digital Corps?

Recruitment of adults for the Digital Corps was overwhelmingly successful, providing powerful evidence that the key resource—a population of tech-savvy adults with the expertise, availability, and motivation to participate

Table 1. Research Question

Process	Insert Program Question	Case Study Question
ADULT RECRUITMENT	Does a population of adults exist with the expertise, availability, and motivation to deliver content-based workshops in afterschool programs?	Can we build a Digital Corps?
PROFESSIONAL DEVELOPMENT	What professional development do insert providers need to deliver high-quality, content-based workshops in afterschool?	What professional development do corps members need?
PROGRAM IMPLEMENTATION	Are insert providers able to deliver workshops that reach the intended youth, are engaging, and accomplish the program goals?	Did it work?

in afterschool programs—does exist. The Remake Learning Digital Corps initiative received 55 serious applications and hired 34 corps members for the pilot round. Additional members were hired for the subsequent summer session, and a few new members have been added each round since. Analysis of questionnaires showed that Digital Corps members were typically in their 20s and 30s. They were well educated but did not report high household incomes. The pilot group was 61 percent female and was 68 percent White, 14 percent Black.

We expected that Digital Corps members would be like volunteers in mentoring programs: Most would be non-youth-worker professionals who wanted to spend time with kids. However, more pilot corps members came from youth programming than from technology: 84 percent reported having been informal educators, and 48 percent had been school teachers. Nearly 60 percent had at least five years of experience working with youth, and about 40 percent worked with youth daily in their current jobs.

Adults became corps members for a variety of reasons. In survey and interview responses, the most common reason, mentioned by 77 percent of members, was the same as the goal of the initiative: To increase digital technology skills and experiences for youth. Digital Corps members were proponents of this mission. One member put it this way:

> Digital literacy is a new facet to success in today's world, and it's important for [youth and teens] to learn and understand it. My hope with Digital Corps was to be able to expose youth in Pittsburgh to new technologies and to spark an interest in creativity and innovation!

Another facet of this motivation was a desire to serve youth who might not otherwise have opportunities to learn technology skills, as expressed by 17 percent of members. Another 20 percent wanted to improve technology offerings in established programs or in the region. Several corps members who were already connected to youth programs wanted to bring the Digital Corps or their learning from it back to their programs. For example, one wrote, "I'm looking forward to taking what I've learned and applying it to my program."

The second most common motivation for joining the program, given by 47 percent of respondents, was to further their own learning and development. For example, one corps member cited the "exciting opportunity to expand my skill set with these brilliant programs, and the opportunity to gain some teaching experience." The importance of the opportunity to build marketable skills should not be overlooked; insert programs may act as components in the professionalization of youth work (see Fusco, 2012). One corps member stated, "To be totally honest, I was, like, 'This would probably look good on a résumé.'"

Only two members specifically mentioned the stipend as being an important motivating factor. However, in a separate survey question, fully 86 percent of pilot

corps members rated compensation as important or very important in their decision to participate. This aspect also relates to the professionalization of youth work. Providing stipends supports the notion that digital literacy in afterschool is important and that facilitating learning in this area requires expertise.

Question 2: What Professional Development Do Corps Members Need?

Digital Corps members generally liked the professional development workshops. Depending on the workshop, between 67 and 93 percent of attendees agreed with the statement "Today's training was of high quality." In particular, members appreciated the open, can-do, tech-friendly atmosphere fostered in the workshops. Survey responses indicated that attendees valued peer-to-peer learning during the time allotted at the end of most sessions for exploration of the digital tools. Time for HOMAGO—hanging out, messing around, and geeking out—is part of an experiential learning theory developed through ethnographic observation of youth engaging with new media (see Ito et al., 2010). Additionally, members appreciated aspects of the training created to meet the needs of busy professionals. For example, a relatively open schedule included sessions offered on multiple days and at various sites around the city. An online community on Google+ facilitated continued sharing of resources.

Time for HOMAGO—hanging out, messing around, and geeking out—is part of an experiential learning theory developed through ethnographic observation of youth engaging with new media.

Although they generally liked the training, corps members noted that it tended to be pedagogically traditional. The walk-you-through-it model commonly used in technology training is essentially the old transmission model of education. One corps member said, "The trainings were all pretty good, but often were more like tutorials. 'Click this, enter that' without explaining why." Rather than being encouraged to use a new facilitation model, corps members were left to figure out pedagogical approaches on their own. At some sites, this approach created friction between corps members as they tried to reconcile differing pedagogical approaches and expectations of afterschool. In her interview, one corps member spoke highly of her co-teachers on a personal and professional level but said that they had "different ideas of why we were there and how to structure lesson plans" as well as "completely different teaching styles and backgrounds, which is hard."

Corps members differed in their strengths and in the training they needed to be successful. The needs of youth workers who were expanding their program repertoire (and making a little extra money) tended to be different from those of the technology professionals looking to work with youth in their free time. One of the latter noted in an interview:

> I would have really liked someone to tell me how to teach, and I felt a little outnumbered because it seemed like a lot more people were educators. I felt like one of the outliers; I was, like, a technology guy who just happened to be trying to get into it. So, I feel like maybe that was one of the reasons why there wasn't actually any sort of instruction on instruction there.

This corps member was not alone. Although respondents indicated that many of their needs were taken into consideration, they did not always feel that the trainings prepared them to facilitate programs with youth. On surveys, corps members reported a desire for more support and training in how to develop and deliver technology workshops that engage and challenge teens. In an early workshop, only 62 percent agreed that, "Today's training made me feel more prepared to teach Scratch." One member said, "I would have really appreciated (and, in fact, I expected) a workshop/training on instruction and education." More specifically, members of the first cohort indicated that they would have liked help with setting the tone, establishing a daily routine, co-teaching, lesson planning, practicing lesson delivery, differentiating for various ability levels, and scaling projects for limited timeframes.

Survey data provided additional information, shown in Figure 2. Although about half (57 percent) of the corps members felt adequately prepared after training both to use digital tools and to facilitate learning with youth, about a third (36 percent) felt prepared in one area but not the other. That is, 18 percent believed they would be good at understanding the tools but not good at facilitating with youth, and 18 percent believed they would be good with youth but not with the tools. In order to investigate further, we interviewed 12 corps members chosen specifically to represent these different confidence types. Interview data indicate that corps members who came into the program confident in their youth development skills may well have had their need for technology knowledge met. However,

those who needed knowledge of youth development and pedagogy were not as well served. Respondents did note that the practice of pairing corps members who had strong youth facilitation skills with members who had good technology knowledge was in some cases effective.

As these findings surfaced, the program coordinator took steps to address them: A local mentoring organization provided a workshop about interacting with youth. However, the coordinator was not able to locate a short workshop on how to manage informal, hands-on workshops with young teenagers. To address this issue, the coordinator—along with some corps members—pieced together a set of classroom management and hands-on learning strategies applicable to informal learning. These strategies aimed to help the corps design an inclusive and productive program culture at each site. In addition, more pedagogy was embedded into training when possible. Participants noticed and valued these efforts, as indicated by a response later in the initiative:

> I liked the way [the program coordinator] did trainings. They felt closer to how we would do them with kids, and were more experimental. I also enjoyed the mentorship training, specifically for suggesting phrases to use to make kids feel appreciated.

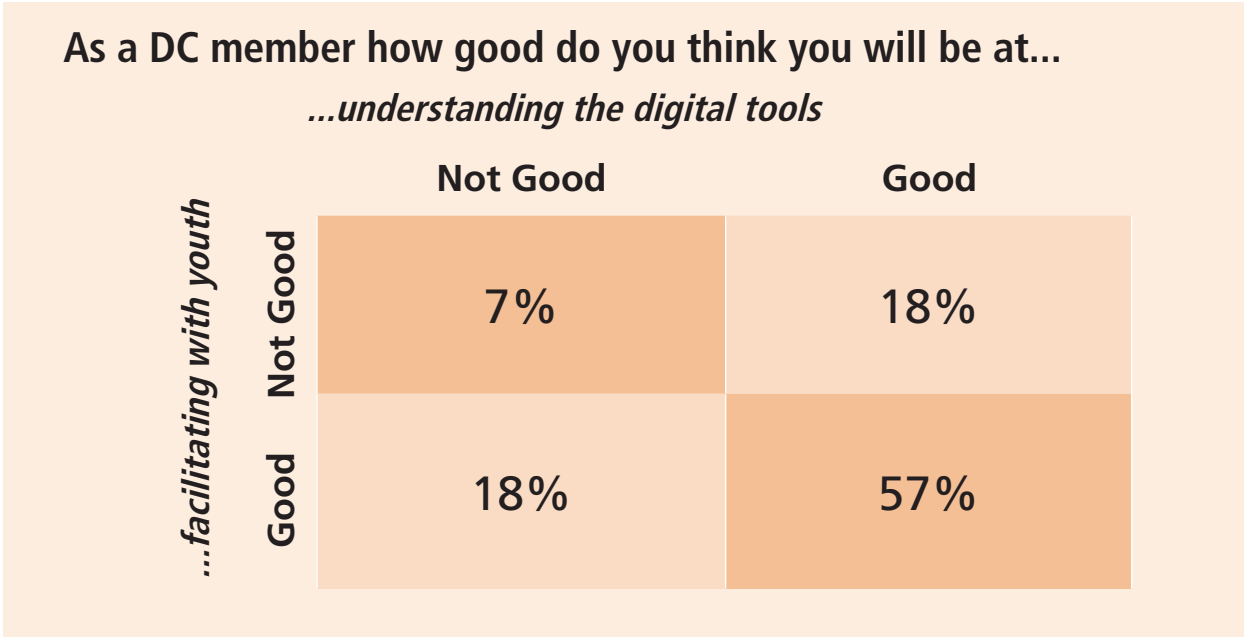
The findings also suggest that afterschool mentoring programs require program evaluation and improvement in order to align with the effective components and activities revealed in the literature.

Question 3: Did It Work?

Digital Corps members generally reported high confidence in their abilities to work with youth and teach digital technologies. At the end of the pilot year, 96 percent of corps members said they were glad they participated, and 92 percent indicated a desire to continue in the program. This desire can be attributed, in part, to the positive effects the corps was seeing. In interviews, members revealed compelling stories of the youth, including one teen who, on completing a project, said, "Wow, I had never seen I could do something like this and had never had anybody invest the time to tell me that I could even be this good at something—at coding, at science and technology."

The Digital Corps reached diverse youth in afterschool programs. Surveys showed that the youth were at the target age, with the median being 13. The majority (64 percent) of youth were male; they were 30 percent white and 70 percent youth of color. Youth responded positively to the workshops and agreed or strongly agreed with the following statements: using the digital tools was fun (95 percent); I learned new skills at today's session (91 percent); today's workshop increased my interest in technology (78 percent); the leader

Figure 2. Beliefs About Technology and Facilitation Skills



of this workshop is good at teaching (91 percent); the leader of this workshop knows a lot about technology (90 percent). Almost all of the teens indicated that they liked the sessions, and 94 percent would recommend the program to a friend.

We also asked youth in surveys what they learned in Digital Corps workshops—not expecting a comprehensive answer, but rather hoping to identify areas for future investigation. Responses indicated that the youth learned, in various workshops, to make a website, upload pictures, make apps, remake games, make videos, identify various motors and sensors, and code. In the words of one youth participant: "I learned that there are endless websites that help you create and discover technology. With my new skills I [am going to] pass it to [other] youth so they can get an interest in technology." Youth expressed satisfaction with their experience: "I'll impress people with my newfound skills" and "I think that it was cool to see nothing become something." They appreciated the program structure: "The thing I liked most was the different challenges." Another student appreciated "the way that the teacher was able to take time with each student individually."

Generalizations From the Case Study

Our findings about the Digital Corps are relevant to afterschool insert programs in general. In this section, we discuss how our results may apply outside of our case study, using the generalized forms of our research questions.

Question 1: Does a population of adults exist with the expertise, availability, and motivation to deliver content-based workshops in afterschool programs?

In our mid-sized city with a county population of 1.2 million, it was not difficult to find adults with content expertise and an interest in leading afterschool insert programs. This finding is similar to the finding of Rabkin and colleagues (2011) that teaching artists are "an abundant but underdeveloped resource" (p. 19). Pittsburgh adults were willing to bring their expertise to afterschool programs if structures were in place to support their involvement. Indeed, they weren't just willing; many Digital Corps members were excited to be involved. One said, "I love youth, tech, and community building. Who wouldn't want to practice their three favorite things all at once?"

Question 2: What professional development do insert providers need to deliver high-quality, content-based workshops in afterschool?

The variation in Digital Corps members' experience with technology and with youth affected what they wanted from training. Although slightly over half of the Digital Corps members felt well prepared in both the content of this insert program and their youth facilitation skills, a substantial number felt less confident in one or both areas. Some needed more training in content and some in facilitation. This variation is likely to be common in insert programs, particularly those that employ part-time staff.

Professional development in our case study tended to focus on content—in this case, how to use digital apps and tools—at the expense of facilitation and understanding of youth learners. This imbalance is likely to be common in insert programs, particularly those that involve technology. After all, facilitators do need to understand the content they are facilitating. However, insert program developers would be wise to ensure that ample attention is given to understanding youth and how to work with them.

In our case study, a quick fix for this training challenge—a local two-hour workshop in classroom management and facilitation—was not available. Although many afterschool programs bring in outside adults to work with youth, the coordinator was not able to locate a simple training to quickly bring novice facilitators up to speed. Specifically, the Digital Corps needed quick "onboarding" to help new corps members work with middle school youth in an open, hands-on environment while providing structure to curb classic behavior issues.

In fact, such a "quick fix" may not be possible. The skills required to establish a classroom culture and manage behavior are honed through experience; they are not quickly or easily taught in a workshop. Embedding youth development and facilitation throughout a longer content-based training may be a more viable option.

Question 3: Are insert providers able to deliver workshops that reach the intended youth, are engaging, and accomplish the program goals?

Evidence suggests that our case study insert program reached its intended audience: diverse middle school youth, particularly those with limited access to technology. The vast majority of youth who completed surveys held the program in high regard. Although our research design did not allow for a rigorous assessment of youth outcomes, surveys and interviews told many stories of youth who could identify skills they had learned. The simple answer to Question 3 is "Yes, insert programs can be successful." The more nuanced view is that insert programs seem to provide exciting, viable ways to get adults to share their expertise with youth, although much remains to be learned about how to make these programs successful.

What's New and What's Old?

The Digital Corps works toward the goal of "remaking learning." It is rooted in the concept of *disruptive innovation*, the change that occurs when new technologies render old products and companies obsolete (Lepore, 2014). In education, disruptive innovation results as learning systems built around new media technology replace traditional educational structures and pedagogies—especially their less effective aspects. The Digital Corps program had important innovative aspects, but traditional tensions and features held sway in other areas.

These promising new approaches and longstanding tensions are summarized in the box "What We Learned About Insert Programs." Though insert programming is not new, applying it through an intentional citywide approach (a) is promising and relatively novel. Second, the professional development workshops were scheduled in flexible ways (b) and made use of online forums, such as a Google+ Community page, for scheduling and knowledge sharing (c). Finally, the youth workshops themselves contained novel elements (d), exposing young people to content they were unlikely to get elsewhere. Amidst this novelty, longstanding issues that affect any voluntary learning setting included struggles with youth engagement (e) and attendance (f).

Other tensions were related not to the youth but to pedagogy (g). One important issue in the Digital Corps training was content knowledge versus facilitation knowledge. This tension has been explored in numerous subject areas in education, including technology (Harris, Koehler, Koehler, & Mishra, 2009). Another issue was with how much to "transmit" material using direct methods and how much to guide youth through exploration, using such forms as discovery learning, guided discovery, and constructivist learning (see Mayer, 2004). A related pedagogical tension is that traditional, transmission-based methods have a sort of inertia; even in a program with designs on disruptive innovation, traditional pedagogy is common.

These pedagogical issues are likely to emerge in any afterschool insert program, particularly in systematic, multisite initiatives like the Digital Corps. If disruptive innovation is a goal, this factor requires attention. Technology programs, in particular, may tend toward traditional pedagogy because the procedural nature of using computer applications can lend itself to how-to instruction. Also, instructors may fear "breaking" the device or software and then being unable to

What We Learned About Insert Programs

1. Adults with content expertise and a willingness to work with youth are available.
2. The tendency, at least with technology, is to focus professional development on content at the expense of facilitation and youth development.
3. Adults may need training in content, facilitation, or both. Individual adults vary in how much they need either one.
4. Short workshops on facilitation or youth development may not be easy to find or deliver.
5. Innovative educational programs like the Digital Corps encounter age-old tensions. One approach that can work is to embrace the new while learning from the old.

Promising new approaches	Longstanding tensions & issues
a) Network-based (citywide) insert programs for afterschool to bring in adults with content expertise	e) Youth motivation and engagement
b) Flexible professional development structures and schedule	f) Irregular voluntary attendance in afterschool
c) Use of digital technologies in professional development	g) Pedagogical tensions: Content knowledge versus facilitation skills Directed versus exploratory learning The inertia of transmission-based pedagogy
d) Novel content in afterschool, such as programming, web development, and robotics	

troubleshoot. In addition, program developers may decide not to focus on teaching facilitators how to teach because they assume that inserting technology professionals into afterschool is in itself disruptive. However, the largest challenge in this area may be the limited time available to provide facilitators with a full suite of trainings that incorporates both content knowledge and pedagogical approaches.

Remixing for Innovation

Perhaps a good way to think about educational innovation is to frame it as remixing, to borrow a word from the tech world. Belshaw (2014) says that food recipes offer a way to understand remixing. Recipes cannot be copyrighted, but they are good starting places for experimentation and adaptation (Belshaw, 2014). This thinking can be applied not only to web development but also to educational innovation. Established practices and research can be integrated into novel learning opportunities that restructure elements of a learning environment such as who the teacher is and what the learning goals are.

It is encouraging to find that members of the public are ready and willing to help. Insert programs can capitalize on community expertise and build valuable relationships. One corps member told the story of a young man, an aspiring rapper, who became so interested in a webmaking workshop that he asked, "How can I make this a website where I can put my YouTube videos?" The corps member went on to say, "By the end of the lesson, it had become a jumping-off point for him to further pursue that knowledge. That was awesome to see." Another corps member, after sharing a similar story, noted, "If you give the child the tools, they will do with it what they need to." If bringing outside adults with expertise into afterschool programs can provide such tools and produce such experiences, that is an innovation worth pursuing.

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Before the School Bell Rings

How a Before-School Physical Activity Program Improves Executive Functions

Georgia Hall, Kristen Fay Poston, and Stephanie Harris

Across the country, school administrators and educators struggle to find time for children to engage in physical activity while still giving them enough time in academic instruction. The steep rise in childhood obesity in the U.S. (National Center for Health Statistics, 2011; Ogden, Carroll, Kit, & Flegal, 2014) suggests that the concern is urgent.

However, the need to meet accountability standards puts pressure in the direction of more "seat time" rather than physical activity time.

Research suggests that the tension between physical activity and academic achievement rests on a false dichotomy. Physical activity can and does support children's learning: Providing children with opportunities for moderate-to-vigorous physical activity can help them improve their academic performance.

In keeping with this research, a before-school physical activity program called BOKS (Build Our Kids' Success) launched during the 2009–2010 school year with a pilot program at one elementary school in the Natick Public School district in Natick, Massachusetts. The following year the program expanded to include all five Natick elementary schools during the 2010–2011 school year. BOKS is now offered in 1,600 schools worldwide. In Natick, BOKS is offered free of charge through funding from the Reebok Foundation and MetroWest Health Foundation.

BOKS operates for approximately 40 minutes before school begins. Children participate for two to three mornings per week. Programming includes an average of 20 minutes of moderate-to-vigorous activity through interactive games, exercises, running, and physical skill building. Previous data suggest that BOKS children accumulate an average of 1,800 steps daily during program time (Hall, Fay, & Harris, 2014).

To investigate how a before-school physical activity program like BOKS can support the positive development

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of young children and support school learning, we conducted a three-year study of school-related outcomes for BOKS students in Natick Public Schools. In particular, we examined whether program participation was associated with "executive functions" such as working memory and the ability to shift between tasks. We found that children in the BOKS program did experience greater increases in some executive functions than did a comparison group of non-participating children.

Research on Physical Activity and Learning

Sattelmair and Ratey (2009) suggest that the link between learning and physical activity may be strong: Students who engaged in a high level of strenuous physical activity exhibited higher test scores than those who did not. The researchers suggest that "physical activity or fitness are not causes per se of enhanced academic performance," but that enhancing learning, concentration, memory, and mood helps children to be better learners (Sattelmair & Ratey, 2009, p. 365).

Berg (2010) found that, when time in physical education is increased, academic performance is at least maintained, despite the reduction in classroom time.

A meta-analysis by Sibley and Etnier (2003) of 44 studies found a significant positive relationship between physical activity and cognitive functioning in children. Cognitive assessments included tests of perceptual skills, intelligence quotient (IQ), verbal and math achievement, memory developmental level, and others. Types of physical activity included resistance or circuit training, physical education programs, aerobic exercise, and perceptual-motor training.

Research by Sallis and colleagues (1999) provides strong evidence that devoting substantially increased school time to physical activity has no detrimental effects on students' academic achievement. Berg (2010) found that, when time in physical education is increased, academic performance is at least maintained, despite the reduction in classroom time.

Some evidence links physical activity to a particular type of learning, specifically executive functions. Executive functions are the brain's management skills. They include, for example, impulse inhibition, the ability to plan and organize tasks, and the ability to transition from one task to another. Executive functions have been linked to many aspects of learning including language comprehension, reading, and writing (Gathercole, Alloway, Willis, & Adams, 2006; Swanson & Jerman, 2007). Executive functions are more strongly associated with school readiness than are IQ or entry-level reading or math skills (Blair & Razza, 2007; McClelland, Morrison, & Homes, 2000).

A study by Kubesch and colleagues (2009) found that executive functions can be improved by physical activity. Working with 81 students in grade 7, they examined the effects of a single 30-minute physical education program featuring aerobic endurance exercise on working memory, cognitive flexibility, and inhibition of distraction and unproductive behaviors. In contrast with students who took a five-minute aerobic movement break, students who engaged in 30 minutes of aerobic exercise were better able to stay on task in the face of distraction.

Several studies have found relationships between academic achievement and the executive function known as working memory. Working memory, which includes both short-term memory and attention, is vital to such basic learning activities as doing mathematical calculations or listening to a story. Some cross-age studies report an association between children's working memory skills and early math skills (Bull, Espy, & Wiebe, 2008; Bull, Johnston, & Roy, 1999; Gathercole & Pickering, 2000; Gathercole, Pickering, Knight, & Stegman, 2004). St. Clair-Thompson and Gathercole (2006) showed that working memory was closely linked with attainment in English and mathematics in 11- and 12-year-old children. Alloway and Alloway (2009) concluded that children's working memory skills at age 5 were the best predictor of literacy and numeracy six years later.

In a meta-analysis of research on the association between schoolchildren's physical activity and academic outcomes, Taras (2005) found that short-term physical activity was associated with short-term improvements in some areas such as concentration. The effect of more vigorous physical activity over time on longer-term academic improvements is not well enough substantiated (Taras, 2005).

Our study shed light on how participation in physical activity over time may be linked to improved executive functions.

Methods

We studied BOKS from September 2011 through June 2014 in five Natick elementary schools. At the beginning and end of each of the three school years, we collected

surveys from teachers and parents of children who did and did not participate in BOKS. Teacher and parent surveys were collected electronically using Survey Monkey, an online survey tool.

Some teachers and parents elected to complete paper surveys. These surveys were sent to parents in children's backpacks and to teachers through the school administration office. Completed parent surveys, in sealed envelopes, were returned in children's backpacks and picked up by researchers at the school offices, along with teacher surveys that had been returned in sealed envelopes.

Teachers and parents completed surveys in November and April of each of the three years of the study. Each teacher completed six to nine surveys. Because some classrooms had 15 or more participants, we randomly capped the number of surveys each teacher had to complete at eight. A few teachers completed nine surveys because BOKS students enrolled in the study after the surveys were distributed.

As an incentive, parents who returned both annual surveys were included in drawings for tickets to local baseball and hockey games. We called and emailed parents to solicit missing surveys. In most families, the same parent completed the surveys every year. The survey return rate for teachers during the three study years was more than 96 percent. Parent return rates ranged from 66 percent during the first year to 51 percent during the third year.

Study Participants

Study participants were recruited in September 2011 through flyers sent home with all children in grades K–2. The families of children enrolled in BOKS also got a reminder email from their BOKS trainer. All families who gave written informed consent were admitted to the study.

Of the 570 students enrolled in the study in Year 1, 136 had registered to participate in BOKS. Most enrolled in BOKS for both the fall and spring sessions. The remaining 434 students comprised the comparison group. In Year 2, the 2012–2013 school year, most students—104 BOKS students and 254 comparison students—remained in the study. After reviewing findings from Year 1, we focused on recruiting a new kindergarten group for Year 2 rather than continuing to follow second graders from Year 1 into Year 2. We were interested in repeating the measurements with a sample of children who had not been exposed to BOKS before. We also wanted to keep the number of participants below 600 to reduce the burden of survey completion on teachers. We recruited 141 new kindergarten students in fall 2012.

No new participants were recruited after the fall of Year 2. For Year 3, the study had 467 participants in grades 1–3. Of these, 167 were enrolled in BOKS. Girls slightly outnumbered boys in both BOKS and comparison groups across all three years, except in Year 2, when 47 percent of the comparison group was girls. Because 92 percent of the school population was white, race was not included in the analysis.

Tools

In the first year of the study, we used three survey tools to collect data from parents and teachers. The survey on which our findings are based is the Behavior Rating Inventory of Executive Function (BRIEF; Gioia, Isquith, Guy, & Kenworthy, 2000), which was completed by both teachers and parents. In addition, during the first year, parents completed the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) and teachers completed the Survey of Academic and Youth Outcomes (SAYO; Miller & Surr, 2003). However, findings from Year 1 showed no evidence that participation affected SSRS or SAYO scales, so we did not conduct these surveys in Years 2 and 3. We collected BRIEF data from both parents and teachers for all three years. The four BRIEF subscales are inhibit, plan/organize, shift, and working memory.

Analysis

Year 1 analysis showed no significant effects of BOKS participation on SAYO or SRSS subscales or on the inhibit or plan/organize subscales of BRIEF. We therefore dropped these measurements in Years 2 and 3 to focus on the BRIEF'S scales for working memory and shift. We used a combination of analyses, including linear regression, analysis of variance (ANOVA), and independent sample *t*-tests to examine the impact of BOKS participation on teachers' and parents' ratings for these two scales.

Treating participation as an independent variable, we analyzed its effect on average differences in scores for working memory and shift skills between pre- and post-participation assessments. Because we found no significant differences in parents' and teachers' ratings of these skills between BOKS and non-BOKS children at baseline for any of the three study years, we did not control for baseline rating in the analyses. For both working memory and shift, we conducted separate analyses for each study year, for each grade, and for teachers' ratings and parents' ratings.

How Exercise Affected Students' Executive Functions

We found significant results or promising patterns in effects of BOKS participation on two BRIEF subscales:

- **Working memory** is the ability to remember and manage information—the brain's "sticky note" (Alloway, 2011).

- **Shift** is the ability to transition from one situation, activity, or aspect of a problem to another (Gioia et al., 2000).

In the area of working memory, we found statistically significant[1] correlations between BOKS participation and improvements in working memory for some analysis subgroups. In Year 1, teachers rated kindergarteners (N = 134) who participated in BOKS for a full year as significantly improved (M = 1.29) in working memory; they did not perceive significant improvement in the non-BOKS kindergarteners (M = –0.22). Although teachers did not rate this group of BOKS children, now in first grade, as showing significant improvement in working memory at the end of the year, parents did see significant improvement (BOKS M = 0.90, non-BOKS M = 0.29). In Year 3, first-graders who were full-year BOKS participants showed significant improvement (M = 0.69) in parents' ratings of their working memory skills, while their non-participating peers (M = –0.54) did not. For other years and subgroups, pre- to post-participation change in working memory was not significant.

The findings from our three-year study of BOKS strengthen the argument that physical activity can position children to be more ready and alert for learning experiences.

Year 1 data showed no significant differences in either teachers' or parents' ratings of BRIEF shift skills between pre- and post-test. However, in Year 2, teachers rated second-graders who participated in at least one semester of BOKS as showing significant improvement in shift skills (M = 0.25) at the end of the year. They rated non-BOKS second-graders as having declined (M = –0.95) between pre- and post-assessment. Parents also rated BOKS second- graders as showing less of a decline in this domain than their non-BOKS peers, though these effects were not significant. In Year 3, parents rated first-graders who participated in at least one semester of BOKS as showing significant improvement in shift skills (M = 0.94), while their non-BOKS peers declined (M = –0.20). Changes in shift skills for other years and subgroups were not significant.

Activity *and* Academics

Researchers and educators continue to raise concern about how schools can balance physical activity with academic instruction. The findings from our three-year study of BOKS strengthen the argument that physical activity can position children to be more ready and alert for learning experiences. The specific executive functions correlated with BOKS activity in this study, working memory and shift, enable children to hold information, complete tasks, carry out instructions, and transition from one task to another. These clearly are important skills for success in elementary school.

Participating in physical activity before school has double benefits: Not only do children get essential moderate-to-vigorous exercise, but they also build skills linked to academic achievement (Hall, Fay, & Harris, 2013; Hall et al., 2014). Consistent with the findings of Sattlemair and Ratey (2009), our research on BOKS suggests that participation is associated with enhanced readiness to learn. Though effects were not evident in every grade and every study year, a pattern emerged over the three years suggesting that participation in a before-school physical activity program can help to improve children's working memory and shift skills as measured by the BRIEF assessment.

This study had limitations that restrict generalization. First, children and families who chose to participate in BOKS may have differed from those who did not elect to participate in important ways that influenced outcomes. Another limitation is that this study used survey data rather than more objective measurements of executive function such as cognitive tests of the children. More research is needed to explore which models of before-school physical activity programming are most likely to be associated with improved learning skills.

Other research on BOKS has pointed to the program's valuable contribution to children's daily accumulated physical activity time and perceived change in physical activity habits. Parent and school administrator feedback has been overwhelmingly strong (Hall et al., 2013). Numerous mechanisms have been proposed to explain the relationship between physical activity and cognition: physiological changes such as blood flow, change in brain neurotransmitters, structural changes in the nervous system, and others (Sibley & Etnier, 2003). Further research could help elucidate which program components are most essential to such physiological changes. Programs could then be designed with these changes in mind. What has become increasingly clear through our study and previous research is that consistent participation in before-school physical activity programming not only fosters children's wellness but also makes an important contribution to their school success.

1 Significance was determined at the $p < .05$ level.

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Afterschool Matters

Call for Papers

Afterschool Matters, a national, peer-reviewed journal dedicated to promoting professionalism, scholarship, and consciousness in the field of afterschool education, is seeking material for future issues beginning with Fall 2016. Published by the National Institute on Out-of-School Time with support from the Robert Bowne Foundation, the journal serves those involved in developing and running programs for youth during the out-of-school time hours, in addition to those engaged in research and in shaping youth development policy.

Afterschool Matters seeks scholarly work, from a variety of disciplines, which can be applied to or is based on the afterschool arena. The journal also welcomes submissions that explore practical ideas for working with young people during the out-of-school hours. Articles should connect to current theory and practice in the field by relating to previously published research; a range of academic perspectives will be considered. Articles should be relevant and accessible to both practitioners and academic researchers. We also welcome personal or inspirational narratives and essays for our section "Voices from the Field."

Any topic related to the theory and practice of out-of-school time programming will be considered. We are particularly interested in manuscripts that offer practice recommendations and implementation strategies related to the featured research. We invite you to discuss possible topics in advance with us. Suggested topics include:

- Physical activity and healthy eating
- STEM (science, technology, engineering, and math) program delivery or STEM staff professional development
- Expanded or extended learning time and the OST hours
- School-community partnerships that support OST programming
- Innovative program approaches
- OST programs and civic engagement, social and emotional development, arts development, or academic improvement
- Research or best-practice syntheses
- OST program environments and spaces
- Key aspects of program leadership and administration
- OST system-building such as cross-city and statewide initiatives
- Special needs youth in OST
- Immigrant and refugee youth in OST
- Youth-centered participatory action research projects
- Gender-focused research and policy initiatives related to OST

Submission Guidelines

- For consideration for the Fall 2016 issue, submit your article no later than January 15, 2016.
- Submissions should be submitted electronically in Microsoft Word or Rich Text format.
- Submissions should not exceed 5,000 words.
- Include a separate cover sheet with the manuscript title, authors' names, addresses, phone numbers, and e-mail addresses.
- The names of the authors should not appear on the text, as submissions are reviewed anonymously by peers.
- Follow the *Publication Manual of the American Psychological Association, 6th Edition* (July 2009), for reference style guidelines. Present important information in the text and do not use extensive footnotes.

Inquiries about possible articles or topics are welcome.
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