

Afterschool Matters

Number 31 • Spring 2020



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National Institute on Out-of-School Time

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Cover, page 11: Mini Mix'd is a group of girls ages 14–17 who create performance and build community through hip-hop/club movement, music, culture, and performance. Photographer: Daniel Lee (Danyolsan)

Page 1: Media Arts Center San Diego. In the center's Teen Producers Project, young people learn the principles of documentary filmmaking or create their own narrative films. Photographer: Dylan Drabble

Page 22: Villa Musica, in San Diego, provides quality music education opportunities in low-income communities through its Access Initiative. Photographer: Jesse Martinez

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WELCOME

I recently had the opportunity to sit in on a youth debate tournament. The experience immediately brought me back to my own participation in the speech and debate club in high school. I owe enormous gratitude to that special English teacher who served as our coach. She made an investment in this sophomore who wandered into the club classroom, coerced by a friend to check out this speech and debate activity.

Fast forward 40 years. Thanks to social media, I am still in touch with many of my peers from that club. Like most people—including, I imagine, each and every reader of *Afterschool Matters*—I can trace much of where I am now, in my career and in my personal life, to interests developed during the afterschool hours.

The topics for our speech and debate competitions were based on issues in the news at the time. Many of those issues are still newsworthy today! Digging into trending stories and events from all perspectives was a significant growth opportunity for speech and debate club members. We expanded our knowledge and skills by listening to others, summarizing viewpoints, reading background materials, engaging in deep discussions, and valuing arguments that ran counter to our own.

Today, engaging with the news and current events may be more important than ever. The next few months in our country will offer many opportunities for youth and adults alike to engage in debate, think critically, and practice empathy. A vital part of the work of afterschool providers is engaging young people in experiences that help them develop into responsible and knowledgeable adults. We are building the citizens of the future—or, rather, we are empowering young people to build their own citizenship and their own future.

The articles in this issue of *Afterschool Matters* on creative youth development, STEM, and summer learning should inspire us to think deeply about how we can empower this generation of young people to find their roles in solving social challenges, building communities, and leading for change. Out-of-school time programs are uniquely equipped for this task because of program designs that foster social and emotional learning. Combining this learning with a specific program focus, such as arts or STEM, enables programs to spark young people's civic engagement today and guide their thinking toward creating the communities of tomorrow.



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Trends in Creative Youth Development Programs

Denise Montgomery

Throughout the U.S., thousands of creativity-based out-of-school time (OST) programs combine principles of positive youth development with immersion in the creative process. Many of these programs refer to their work as *creative youth development* or CYD. According to the Creative Youth Development National Partnership (Montgomery, 2019):

Creative youth development is a recent term for a longstanding theory of practice that integrates creative skill-building, inquiry, and expression with positive youth development principles, fueling young people's imaginations and building critical learning and life skills.

CYD is a diverse field. Programs include a constellation of creative disciplines and genres,

including film making, sound engineering, styles of dance from step to modern to *ballet folklórico*, an array of two- and three-dimensional visual arts from comic book design to photography to sculpture, graphic design, game design, playwrighting, theatrical production, music performance and composition, journalism, and creative writing.

CYD programs share characteristics common among programs that embrace positive youth development, including setting high expectations, encouraging positive risk taking, embracing youth leadership, and engaging young people in contributions to their communities and work for social justice. The basic formula of CYD is the combination

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of a holistic approach to positive youth development with hands-on creative inquiry. The creative process at the heart of CYD programs contributes to tremendous, often transformative, personal growth for participants (Heath, Soep, & Roach, 1998; Hughes & Wilson, 2004). The National Summit on Creative Youth Development (2014) proclaimed:

As young people create their own work in the arts, humanities, and sciences, they build the personal, social, and intellectual capacities they need to succeed in school, career, and life. And as they experience the creative process over an extended period, they learn that they can use it to express their own identities, understand and change the world around them, and connect to the greater human experience. (p. 1)

Creativity-based programs take place in a variety of settings and contexts, including:

- Nonprofit organizations with a primary focus on CYD
- Programs in arts organizations, such as museums
- Programs embedded in youth development organizations
- School-based OST programs
- Community parks and recreation programs
- Other community contexts, such as programs for court-involved or incarcerated young people

In recent years, the heterogeneous field of CYD practice has codified characteristics of high-quality CYD through a series of frameworks, including those offered by the Boston Youth Arts Evaluation Project (2012); Mass Cultural Council (n.d.); Gutierrez and Spencer (2008); and Montgomery, Rogovin, and Persaud (2013). These frameworks, which support shared understanding of CYD, can help programs strengthen practice and improve quality, thereby increasing engagement and supporting more positive outcomes for youth.

At the same time, CYD program practices are continuously in development. CYD practitioners are committed to engaging in ongoing reflection and refinement, to actively responding to young people's leadership, and to reflecting and being connected with their communities.

Drawing on the youth devel-

opment literature, CYD-specific literature, and a decade of primary research, in this landscape analysis I discuss five current trends in CYD program development. Since 2011, I have conducted in-depth interviews with more than 100 CYD practitioners, funders, program participants, and program alumni as well as experts in afterschool, the arts, and adolescence. I have done site visits at over 40 organizations providing CYD programs in more than 20 communities throughout the U.S. My colleagues Peter Rogovin and Neromanie Persaud and I, in a study for the Wallace Foundation (Montgomery et al., 2013), identified 10 Principles of High-Quality Out-of-School Time Arts Programs, which have been widely used in the field. From 2016 to 2018, I served as the inaugural director of the Creative Youth Development National Partnership, where I led an 18-month process with over 600 stakeholders to garner input that I synthesized into the CYD National Partnership's *National Action Blueprint* (Montgomery, 2018b). This article is based on a landscape analysis conducted for Americans for the Arts (Montgomery, 2019), supplemented by subsequent interviews and site visits and by continued involvement in CYD conferences, webinars, and initiatives such as Create Justice.

To frame the observations and insights from my research, I first summarize the historical foundation of CYD programming development and the underlying research. Following discussion of the five trends, I make recommendations for the field and for researchers.

Historical Foundation

CYD as a field has grassroots and community-based origins. In the U.S., tuition-free community-based youth arts programs trace their origins to the settlement house movement of the 1890s and early 1900s (Montgomery, 2016; Starr, 2003). In 1892, a few years after founding the influential Hull House in Chicago, Jane Addams and Ellen Gates Starr created the first community school of the arts. This community arts school bore hallmarks of CYD: It engaged young people in program design, empowered them to connect with and express cultural identity through the arts, encouraged original self-expression, and hosted performances and exhibitions (Addams, 1912; Montgomery, 2016; Starr, 2003). By 1914, youth and adults were participating

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in arts programs in nearly all of the 400 settlement houses in the U.S. (Rabkin, Reynolds, Hedberg, & Shelby, 2011). In 1937, what is now the National Guild for Community Arts Education was founded as an outgrowth of this community-based arts programming. The guild's mission is to advance and support lifelong learning opportunities in the arts, including afterschool arts programs and CYD programming specifically (Montgomery, 2016).

The philosophies of education pioneer John Dewey contributed to the theoretical underpinnings of CYD. In emphasizing the ways experience shapes learning, Dewey also recognized the transformative power of the arts and their ability to raise consciousness of social and political issues (Clements, 2013; Dewey, 1934). Dewey's revolutionary espousal of experiential learning is imprinted in CYD program practices.

Local arts agencies have championed OST youth arts programs for decades. The local arts agency movement took hold in the U.S. in the 1950s and 1960s, resulting in the formation of the National Assembly of Local Arts Agencies. Many members of this association led afterschool programs designed to support what have come to be identified as CYD outcomes. This work continues under the leadership of Americans for the Arts with the support of the National Assembly of State Arts Agencies (Montgomery, 2016).

Roots of CYD also sprang from living rooms, churches, and community centers as people of color shared their artistic and cultural heritages with youth in their communities (Montgomery, 2018a). Often informal in nature, these practices are an essential part of the DNA of creative youth development.

Another key period in the evolution of the field of CYD was the late 1980s and 1990s, when the U.S. experienced a wave of programs started primarily by artists (Montgomery, 2016). These program founders, who were committed to social justice, frequently cited the influence of progressive educator and activist Paulo Freire. His seminal work *Pedagogy of the Oppressed* (1970) continues to influence OST generally and CYD specifically.

In 1996, *Coming Up Taller: Arts and Humanities for Children and Youth at Risk* (Weitz, 1996) raised awareness of CYD and made the case for arts- and

humanities-based youth development programs. Then, in 1998, Americans for the Arts, in partnership with the U.S. Department of Justice's Office of Juvenile Justice and Delinquency Prevention, illustrated how CYD can partner with education, juvenile justice, and social services organizations toward shared goals in the *YouthArts Handbook: Arts Programs for Youth at Risk* (Farnum & Schaffer, 1998), a forerunner to CYD's growing collaboration across allied youth sectors.

Meanwhile, influenced by the Search Institute's pioneering Developmental Assets for Youth (1997), CYD practitioners, like OST professionals generally, rejected the deficit orientation implicit in the labeling of some young people as being "at risk." Embracing positive youth development, they shifted toward an assets-based approach, which recognizes that all young people have unique strengths.

Around the same time, Shirley Brice Heath shared her insights from a decade of field research on OST programs, revealing that young people in arts-based programs experienced greater cognitive and linguistic development than youth in other types of programs, such as athletics (Heath & Roach, 1999; Heath, Soep, & Roach, 1998). Meanwhile, CYD practitioners contributed to and reflected the holistic view of youth development noted by Eccles and Gootman in their milestone publication *Community Programs to Promote Youth Development* (2002). As in other areas of youth

work, CYD programs manifested a growing awareness that young people need a range of personal and social assets, as well as life skills and knowledge, in order to realize their potential.

A groundbreaking 2011 article by John Kania and Mark Kramer on collective impact highlights broad cross-sector collaboration in efforts to effect large-scale social change. This idea has influenced the social

sector generally and CYD particularly. *Setting the Agenda* (Stevenson, 2014) cites as the first of five strategic priorities for the CYD field "building collective impact to improve youth outcomes." The 2014 National Summit on Creative Youth Development, which focused on collective action, was an important milestone for the coalescing field of CYD. Summit participants jointly authored *Collective Action for Youth: An Agenda for Progress Through Creative Youth Development* (National

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Summit on Creative Youth Development, 2014), which shares a vision for providing young people with access to high-quality CYD programs and identifies strategic priorities to achieve this vision. Another outgrowth of the Summit was the 2014 formation of the Creative Youth Development National Partnership, a collective impact initiative to advance the field. The Partnership comprises the National Guild for Community Arts Education, Mass Cultural Council, and Americans for the Arts.

Few CYD publications have been based on direct research with youth, a disconnect with CYD's core value of amplifying youth voice. One exception is *Something to Say: Success Principles for Afterschool Arts Programs From Urban Youth and Other Experts* (Montgomery et al., 2013), which provides insights on tween participation and engagement in OST arts programs garnered from direct research with tweens and teens.

Three recent works examine CYD and arts programming in settings outside dedicated CYD programs. *Room to Rise: The Lasting Impact of Intensive Teen Programs in Art Museums* (Linzer & Munley, 2015) documents how deep engagement with art museums had enduring impact on program participants. *Partnering With Community Arts Organizations: A Pathway to a High-Quality Club Experience* (Montgomery & Rogovin, 2017) shares detailed best practices of how Boys & Girls Clubs in rural, suburban, and urban areas partnered with local arts organizations to provide skills-based arts programs. *Designing for Engagement: The Experiences of Tweens in the Boys & Girls Clubs' Youth Arts Initiative* (McClanahan & Hartmann, 2018) details lessons learned from the implementation of the 10 Principles of High-Quality Afterschool Arts Programs (Montgomery et al., 2013) in a multiprogram OST environment. The insights shared in these reports are useful contributions to afterschool providers who seek to develop high-quality, creativity-based youth development programs.

Another resource for youth development students and practitioners is the second edition of the textbook *Youth Development Principles and Practices in Out-*

of-School Time Settings (Witt & Caldwell, 2018). The addition of a chapter on CYD in this edition (Montgomery, 2018a) shows that CYD is growing in prominence in the field of youth development.

Finally, the CYD National Partnership's *National Action Blueprint* (Montgomery, 2018b) maps strategies and actions for advancing CYD that include implications for program development. The blueprint is providing a framework for local collaborations such as the San Diego Creative Youth Development Network.

The field of CYD has evolved alongside the field of youth development, with both growing in sophistication and nuance of practice. CYD programs and stakeholders have many publications and tools on which to draw to learn about CYD, deepen practice, and improve program quality. Meanwhile, practitioners in this dynamic field continue to pose questions and test approaches to refine programming.

Key Trends

Resolved to help young people thrive, CYD programs work to support youth in navigating not only ordinary stages of development and identity formation but also such challenges as school violence, individual and community trauma, and poverty. At the same time, CYD programs strive to help young people develop the life skills, knowledge, and supports necessary to realize their potential and successfully transition into adulthood.

As I have worked with CYD programs and interviewed CYD program staff, administrators, youth participants, and funders, I have

observed five key trends in the ways the field is evolving to help programs meet those goals:

1. Holistic approaches that evolve as needs grow
2. Collaboration across sectors
3. A new generation of program staff and leaders with new approaches
4. Scaling by depth
5. Creative career pathways

Holistic Approaches That Evolve as Needs Grow

CYD programs are holistic; they concern themselves with the entirety of young participants' lives, including emotional and social well-being, mental health, safety,

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and basic life needs. Recognition that healing can occur through artmaking and creative expression is widespread. Beyond that, holistic program practices and approaches to support services vary across CYD programs. Some programs use restorative circles; others employ mindfulness techniques; and others, such as RiverzEdge Arts in Woonsocket, Rhode Island, have systems by which young people can readily access one-on-one support from program staff. During a site visit, I observed that RiverzEdge participants, on arrival, indicated how they were doing on a scale of 1 to 5. They knew that, if they chose 1 or 2 or had several days of 3s, an artist mentor would connect with them individually to learn more and offer support.

The staff at RiverzEdge typifies CYD program staff members in their commitment to caring and supportive relationships with youth. According to Jennifer DiFiglia, MSW, chief program officer at LEAP New York City, CYD program staff seek:

to connect with students in a safe and positive way to reflect on news, community issues, personal and growing up issues that can inform the artistic responses in young people ... a space to feel safe, talk, and listen without judgement or having to “ask” for it. (personal communication, May 29, 2018)

In the wake of social and political turbulence in the U.S. and increases in anxiety and depression among young people, unprecedented numbers of CYD participants are turning to program staff for types of support that artistic staff members may not be equipped to provide. To address these needs effectively and responsibly, many programs refer participants to local social service providers with which the programs have built relationships. Other programs have social workers on staff. Another model is that of Mosaic Youth Theater of Detroit, which assigns an artistic staff lead and a social services staff lead to every production, proactively embedding professional social and emotional support within young people’s artistic experiences.

Many CYD practitioners have sought specialized training to guide them in their work with young people who have experienced trauma. As trauma-informed practice has grown among organizations that work with young people, Shawn Ginwright has reminded practitioners of the importance of assets-based approaches, putting forth *healing-centered engagement* as a practice that centers culture as a key feature of well-being (Ginwright, 2018). An example of healing-centered engagement in a CYD program is provided by

Alchemy, Inc., in Akron, Ohio, which engages young African-American men in African drumming and the interpretation of mythological stories.

In optimizing their holistic approaches, some organizations are concerned about keeping creativity at the center of the work and not becoming too clinical. Furthermore, staff who support healing for youth must heal themselves and must routinely restore themselves (Ginwright, 2018). An example of self-care for program and administrative staff comes from RYSE Center in Richmond, California. This youth development and CYD program closed its doors for a week in August 2019 to support the well-being of its staff (RYSE Center, 2019). The reasons outlined in the excerpt on this page from the RYSE Center’s announcement will be familiar

RYSE Center Restoration Week Announcement

For over a decade RYSE has been relentless in our pursuit of justice and radical love for young people in our community. We have centered our work on being responsive to the explicit needs of youth and centering healing practices for our members, their families and the larger community....

The cumulative toll of persistent, atmospheric trauma ... creates a persistent cycle of organizational anxiety and hyper-vigilance. The impact is that a staff that loves this work is moved to a point of just “getting through” or “getting by.”... Each day that we aren’t addressing this toll we’re becoming more rigid, getting physically and emotionally sick, and leaning into scarcity when what we need is to stay responsive, patient, compassionate, and holding abundance and love at our core....

We are here in the deepest service to young people, and that means we must show up with our full authentic selves. Our young people deserve that. Our young people see and feel our love, and also understand the toll on us individuals and on the RYSE system. Taking a day off or giving ourselves a day for self-care is not enough, because it is not just about one person or one program. RYSE has always been about our collective care and liberation....

RYSE is enacting a week of restoration for staff to rest, reflect, grieve, and recharge mind, body, and spirit. *What this means in practice is that the organization will be closed to members and the larger community. We will not be responding to emails or calls until we return on August 26th....* This is a week to reimagine a new way of existing that allows us to be whole, healed and in deeper service to ourselves, our community and our collective liberation. (RYSE Center, 2019. See the full announcement at <https://rysecenter.org/blog/restorationwk2>).

to many CYD and OST programs and community-based organizations.

Restoration weeks like the one held by RYSE are not yet a trend. However, during a webinar presenting the trends outlined in this article (CYD National Partnership, 2019), co-presenter Cristy Johnston Limón, executive director of Youth Speaks in San Francisco, California, noted that CYD practitioners are expressing interest in addressing the need for self-care proactively, not only through individual measures but also in program design and organizational operations.

Collaboration Across Sectors

The importance of cross-sector collaboration is highlighted in the CYD National Partnership's *National Action Blueprint* (Montgomery, 2018b):

As allied youth fields such as juvenile justice, health and wellness, and workforce development increasingly take a youth development approach, leaders in these sectors and movements are building awareness and recognition of the ways in which CYD aligns with and supports mutual goals. CYD programs and organizations are forming cross-sector partnerships and alliances as strategies to connect with more young people, build engagement, and diversify and grow funding.

The blueprint calls for the CYD field to work across allied youth sectors at the local, regional, and national levels. To that end, it presents a matrix of areas of alignment across sectors (Montgomery, 2018b).

Individual CYD organizations have worked across sectors from the beginning. However, for the CYD field as a whole, cross-sector collaboration is in an early stage. The number of success stories is growing, as I've learned from recent conversations with CYD leaders. For example, in Massachusetts, more funding for CYD is coming from the state's corrections budget than from the arts budget. In Los Angeles, the Arts for Incarcerated Youth Network garnered \$2 million in funds from the L.A. County corrections budget in a single budget cycle. Fourteen CYD partner organizations are now working with detained and court-involved youth under this grant.

A New Generation of Program Staff and Leaders with New Approaches

A new generation of CYD leaders and program staff are working in new ways, often outside of traditional nonprofit structures, to advance their CYD missions and associated social justice work. Many of these skilled and adept 21st century leaders are alumni of CYD programs. Many are, like the majority of program participants, people of color.

As I've learned in interviews and site visits, this new generation is rejecting current structures in nonprofit administration and leadership, bringing fresh approaches to the work. Young creative professionals in CYD tend to be entrepreneurial. As digital natives, they are adept at combining digital platforms with on-the-ground experiences to generate excitement, participation, support, and adoption of a new flavor of CYD, one that is relevant and moving. Unwilling to perpetuate the status quo—the exhausting pursuit of funding that is largely unavailable to community-based organizations—these new CYD leaders are taking steps to function independently of philanthropy.

For example, CYD teaching artist Jenay “Shinobi Jax” Anolin cofounded Mix'd Ingrdnts, a for-profit dance company, and spearheaded formation of Mini Mix'd, a girls' dance program that furthers young women's artistic development and supports CYD outcomes such as positive adult and peer relationships.

This Oakland, California, group secures funding from multiple sources, including grants, competitions, and fee-for-service performances at business events. The young dancers in Mini Mix'd crowdfund each year so they can train with other dancers across the country. In 2019 Anolin supported Mini Mix'd girls in hosting their first Youth Summit weekend of performances, workshops, and dance battles with free participation for all youth under 18.

Other CYD staff members are collaborating within and outside of their organizations to create peer-led pop-ups that crowdsource funding and host fee-for-service cultural events. These projects fuel CYD professionals' creative passions in a way that is of great value to their organizations and to program participants, who are inspired by seeing their mentors

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make things happen in the community. Artists and organizers are paid for their work on these cultural events; their involvement thus supplements the modest salaries they earn as educators and administrators. These creative happenings may exist outside of formal CYD organizations, while tapping into leaders' networks for resources and expertise. For example, Oakhella in Oakland, California, began as a micro music festival and is now an event production company using digital assets to celebrate local culture and civic engagement in ways that are fresh, fun, and energetic. One of Oakhella's founders is Bijou McDaniel, a staff member at Youth Speaks, a San Francisco-based CYD organization. Such projects are a manifestation of the creativity, openness, and community connections of teaching artists, CYD administrators, program participants, and alumni.

In an example of creative funding, James Halliday, executive director of A Reason to Survive (ARTS) in National City, California, secured fee-for-service contracts with a city government, a private company, and a school district. ARTS has made substantial progress toward Halliday's goal to have 50 percent of the budget come from earned revenue. Importantly, the contracts are mission driven and involve students in projects such as creative placemaking.

Leaders like Anolin, McDaniel, and Halliday are the vanguard in CYD. Programs, organizations, and the field as a whole stand to benefit from their disruptive innovation.

Scaling by Depth

Recognizing that trusting relationships and high-level skill building require deep levels of engagement, CYD practitioners and organizations are choosing to invest substantial time and resources in individual young people. In the tension between quality CYD practice and a desire to serve young people who do not otherwise have access to CYD programming, they are leaning toward quality. Efforts by CYD programs to "scale up"—to serve significantly larger numbers of youth or to expand their geographic range—have been limited, largely because of concerns about program fidelity, lack of capital, and the need for authentic connection to the local community, which is a hallmark of strong CYD program practices.

In the tension between quality CYD practice and a desire to serve young people who do not otherwise have access to CYD programming, they are leaning toward quality.

Many of the CYD programs I've explored have elected to go deeper and are exploring program practices in support of that approach.

For example, David's Harp Foundation (DHF) in San Diego, California, has responded to young people's desire to remain involved after their participation ends by creating internship programs. Young people who are up to 22 years old train to become artist mentors for newer participants in the DHF media production program. These homegrown mentors not only fulfill the demand for ongoing involvement but also meet DHF's need for qualified teaching artists who have both technical skills and a commitment to the DHF community.

Although they are growing in their awareness of CYD, public and private funders alike continue to press for increases in numbers of youth served and lower costs per young person. CYD applicants can be penalized in competitive grants processes for choosing to scale by depth.

Creative Career Pathways

CYD programs are increasingly working to establish organized supports and networks to prepare participants for careers in creative industries, from film and television to fashion and video game design. Strategies include providing paid apprenticeships, internship programs, opportunities to interact with creative professionals, and scholarships, as well as hiring staff who are practicing creative professionals. Some programs have partnered with high schools or alternative high schools to provide programming and internships focused on creative industry careers. Another avenue is support for college and career readiness. As participants develop technical skills, they also gain knowledge and skills to help them succeed academically and socially in college or training programs and then in their careers.

For example, artworxLA is working with education, workforce development, and creative industry partners in Los Angeles toward shared goals, with a particular emphasis on creative career pathways. Exemplifying cross-sector partnership that leads to diversified and expanded funding in addition to positive outcomes for youth, artworxLA was awarded a multiyear \$550,000 grant by the U.S. Department of Labor for its work

on creative career pathways (artworxLA, 2016). In another example, A Reason to Survive (ARTS) will launch its Creative Futures Fellowship in partnership with a local school district in 2021. The program, which spans two years for each cohort of high school students, builds career pathways by offering work-based learning opportunities in creative careers such as product design and architecture.

Recommendations for the Field of CYD

These key trends suggest ways the field of CYD can support and accelerate innovation. Because CYD and OST share so many needs and opportunities, these recommendations largely apply to both fields. CYD programs and practitioners can:

- Build and connect with local and regional peer learning networks. The *National Action Blueprint* (Montgomery, 2018b) calls such networks “an effective way for practitioners and other CYD stakeholders to support and learn from each other.”
- Build awareness of the value of CYD and of scaling by depth. CYD champions and funder allies should address how blunt grant application measures of cost per youth and number of youth served can thwart effective program practices.
- Participate in or initiate collective impact initiatives to benefit youth and communities.
- Collaborate with other CYD stakeholders, including youth, to merge the various frameworks of CYD program practice to provide greater clarity for practitioners.
- Share the CYD frameworks with the larger OST field so that program leaders who are unfamiliar with CYD or who are interested in strengthening the quality of their creativity-based programming can benefit from these tools.
- Champion the innovations of the new generation of CYD program staff and leaders as they break new ground.
- Address knowledge gaps with the active input of practitioners and youth. CYD practice is nuanced in ways that people who work with young people every day are best able to illuminate. Including youth perspectives will strengthen CYD research and increase the usefulness and efficacy of recommendations.
- Prioritize youth involvement in regional and national dialogues about program development, just as young people are already initiating programs and sharing decisions with adults in individual exemplary CYD programs.

Recommendations for Further Inquiry

The CYD field is ripe for additional research as the field is coalescing, gaining attention, and continuing to innovate. The recommendations below are largely applicable to OST generally. Both academic researchers and CYD professionals conducting practice-based action research can:

- Explore ways to provide effective and responsible support to young people through holistic program practices and social services while maintaining a focus on creative practice. Research can also help to identify and share program practices that remove barriers and reduce stigma for young people seeking support.
- Build and amplify methods for CYD program staff to heal and care for themselves in order to make possible their ongoing work with youth.
- Identify and share emerging approaches to cross-sector collaboration, including candid discussion of the challenges of partnering across sectors and identification of strategies for addressing these challenges.
- Invest in experimental approaches to cross-sector collaboration.
- Explore how to reach more young people with high-quality CYD programs through partnerships with youth development organizations, community centers, libraries, museums, and other places interested in arts- and creativity-based programs.
- Refine and share best practices for transitioning program participants and alumni into leadership and staff roles.
- Examine the conditions that make peer learning networks effective forums for professional development.
- Explore how to intentionally build creative career pathways into program models.

CYD programs are dynamic; by nature, they are in a perpetual state of program development. In order to support program development effectively, the field must build professional development capacity and provide multiple ways for practitioners and stakeholders to engage with and learn from one another. Young people must be actively engaged in deliberations about practice at all levels and in research on CYD program practice.

Acknowledgment

This article is adapted from a landscape analysis (Montgomery, 2019) originally commissioned by Americans for the Arts as part of its Creative Youth Development Toolkit.

How to Find CYD Programs

To find local or regional CYD programs, you can contact your state or local arts agency or the Creative Youth Development National Partnership (www.creativeyouthdevelopment.org). Another approach is an Internet search using the term *creative youth development* and the locale.

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Designing for Engagement

How High-Quality Arts OST Programs Can Engage Tweens

Tracey Hartmann and Wendy McClanahan

Tweens—young people age 10 to 14—are notoriously difficult to engage and retain in out-of-school time (OST) programs. As youth age, they have more responsibilities and options after school. They also have more autonomy than younger children, so they “vote with their feet” when a program does not interest them.

When it launched the Youth Arts Initiative (YAI) with funding from the Wallace Foundation in 2014, Boys & Girls Clubs of America (BGCA) hoped this high-quality arts initiative would address the challenge of attracting and retaining tweens. Research from the first three years of the initiative suggests that it worked: Participants were highly engaged in YAI. This engagement translated into regular attendance: More than half the participants attended the program at least once a week, and two-thirds were retained in the program from year to year.

YAI participants also increased their Club attendance, while members who were not in YAI decreased their Club attendance. Furthermore, parents, staff, and participants themselves reported that YAI improved young people’s self-confidence and self-awareness and their ability to self-manage, persist, and develop new friendships.

This article shares findings from three years of implementation research about how and why YAI was successful in attracting and engaging tweens and about the benefits participants experienced. We

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Figure 1. The 10 Success Principles

Source: Montgomery, Rogovin, & Persaud, 2013

<p>PRINCIPLE 1 PROFESSIONAL PRACTICING ARTISTS</p>	<p>PRINCIPLE 2 EXECUTIVE COMMITMENT</p>	<p>PRINCIPLE 3 DEDICATED SPACES</p>	<p>PRINCIPLE 4 HIGH EXPECTATIONS</p>
<p>Instructors are professional, practicing artists and are valued with compensation for their expertise and investment in their professional development.</p>	<p>Executive directors have a public commitment to high-quality arts programs that is supported by sustained action.</p>	<p>Arts programs take place in dedicated, inspiring, welcoming spaces and affirm the value of art and artists.</p>	<p>There is a culture of high expectations, respect for creative expression, and an affirmation of youth participants as artists.</p>
<p>PRINCIPLE 5 CULMINATING EVENTS</p>	<p>PRINCIPLE 6 POSITIVE RELATIONSHIPS</p>	<p>PRINCIPLE 7 YOUTH INPUT</p>	
<p>Programs culminate in high-quality events with real audiences.</p>	<p>Positive relationships with adult mentors and peers foster a sense of belonging and acceptance.</p>	<p>Youth participants actively shape programs and assume meaningful leadership roles.</p>	
<p>PRINCIPLE 8 HANDS-ON SKILL BUILDING</p>	<p>PRINCIPLE 9 COMMUNITY ENGAGEMENT</p>	<p>PRINCIPLE 10 PHYSICAL & EMOTIONAL SAFETY</p>	
<p>Programs focus on hands-on skill building using current equipment and technology.</p>	<p>Programs strategically engage key stakeholders to create a network of support for both youth participants and programs.</p>	<p>Programs provide a physically and emotionally safe space for youth.</p>	

begin by using the 10 success principles that define high-quality arts programs (Montgomery, Rogovin, & Persaud, 2013) to describe how YAI is different from arts programs typically offered in multiprogram afterschool settings. We then describe the YAI pilot and program structure before turning to the research findings. These findings lead to recommendations for the field on ways to engage tweens in arts programming.

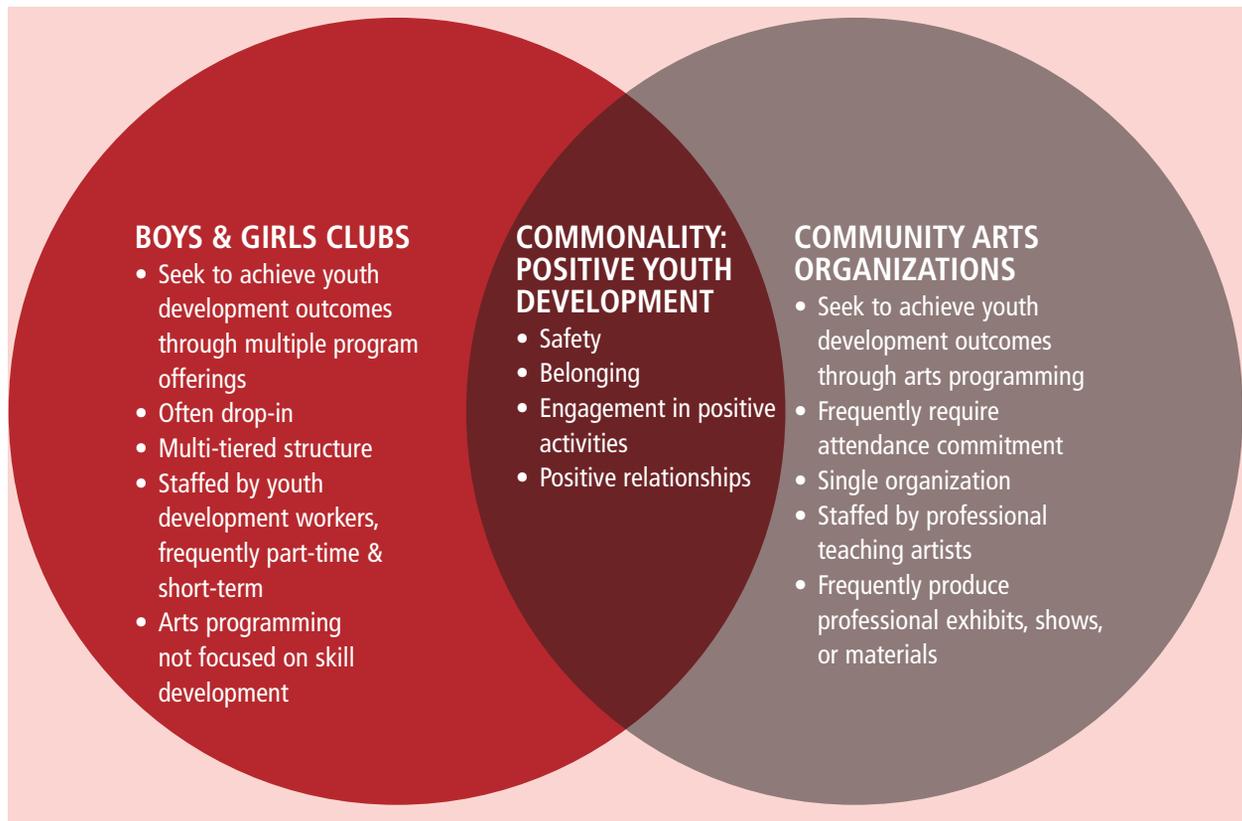
The Youth Arts Initiative and the 10 Success Principles for Arts Programs

YAI's model is derived from a multiyear study of youth engagement in the arts called *Something to Say: Success Principles for Afterschool Arts Programs from Urban Youth and Other Experts* (Montgomery et

al., 2013). The study identified the 10 principles for implementing high-quality OST art skill-development programs displayed in Figure 1.

The 10 success principles were based partially on the experiences of art-focused organizations. YAI is based in Boys & Girls Clubs—that is, in multiprogram afterschool settings. Both kinds of organizations want youth to thrive socially, emotionally, and cognitively. Both have youth development at their core: They strive to create safe environments where young people can feel that they belong; engage in positive activities; and develop strong, supportive relationships with adults and peers. However, multiprogram and community arts organizations also differ in significant ways, as shown in Figure 2 and summarized below.

Figure 2. Comparison of Boys & Girls Clubs and Community Arts Organizations



Breadth vs. depth. Clubs strive for holistic youth development by providing multiple programs for participants to explore. Arts-focused organizations focus on holistic youth development through the arts.

Open-access vs. selective participation. Clubs are safe havens where youth can explore varying interests in a structured environment. Participation is voluntary, and participants are rarely turned away. Community arts programs, by contrast, try to make youth comfortable with taking risks. They frequently restrict enrollment to cohesive cohorts that their budgets can support. Because they focus on skill development, attendance can be mandatory.

Generalists vs. specialists. Clubs are staffed by youth development workers, who often work in many program areas. Many staff are needed to work with large numbers of youth, but funding constraints mean that staff are usually part-time and often receive low wages. In contrast, community arts programs offer programming for a smaller number of youth and are staffed by professional artists who are compensated at rates that acknowledge their expertise.

In light of these differences, YAI's pilot was designed to investigate whether the 10 success principles could be implemented in Boys & Girls Clubs to transform the existing arts programs into high-quality art skill-development opportunities for low-income urban youth.

YAI Pilot and Program Structure

The YAI pilot involved BGCA, three affiliate Clubs (the local umbrella organizations), and six units (Clubhouses in which YAI programming took place). BGCA served as the intermediary organization, overseeing and supporting the pilot implementation. For this pilot, BGCA selected three Clubs in close geographic proximity to one another: Boys & Girls Clubs of Central Minnesota, Boys & Girls Clubs of Greater Green Bay, and Boys & Girls Clubs of Greater Milwaukee. All served low-income youth and were committed to the arts, but they had not yet focused on developing high-quality art skill-development programs. Each Club selected two units to execute YAI's programming, and each of those units implemented two art forms, which were selected with input from Club members.

Figure 3. YAI Art Forms

ART FORM	TOTAL NUMBER OF CLASSES IN ART FORM	TYPE OF CLASS (NUMBER)
PERFORMING ARTS	3 classes	Dance (3)
VISUAL ARTS	3 classes	Mural arts (1), visual arts (2)
DIGITAL ARTS	6 classes	Fashion design (1),* film/video production (2), digital music (2), graphic arts (1)

* BGCA categorizes fashion design as a digital art because the equipment used creates similar dynamics. Participants work individually at computers or sewing machines and require individual support.

Figure 3 shows the three categories of art forms implemented and the number of classes offered by the six participating units. In BGCA's categorization, fashion design is included with digital arts because the dynamics are similar: Whether they work at computers or sewing machines, participants have an individual work stations and need support to learn the equipment.

To implement the arts classes, the Clubs hired professional practicing artists, including:

- A dancer who choreographed a popular television show
- A film producer who worked with public television and had won an Emmy award
- An audio engineer who produced music for various rap artists

These professional artists had the credibility and the “wow” factor that tweens wanted. Initially the most important hiring criterion was art skills, but Clubs quickly learned that youth development skills and cultural competence were equally important, if not more so. When artists didn't have prior experience with tweens, Clubs offered youth development training, both internal and external. Artists were also given up to a month for onboarding before their classes launched. During this time, they were encouraged to circulate through their units to meet participants and other staff, observe programs, and learn the unit's daily routines.

YAI artists offered two types of classes: skill-development and exposure. Skill-development classes

were held several times a week for one or two hours a day with the explicit goal of building specific artistic knowledge and competencies. Participants in skill-development classes were expected to attend regularly, arrive on time, adhere to a strict code of conduct, and participate in a public culminating event. Exposure classes were for interested participants who were unable or unwilling to adhere to these requirements. They were also open to skill-development participants who wanted more time to practice. Both types of classes were held in one of YAI's newly designed near-professional-quality art, dance, film, or recording studios. These spaces were dedicated to YAI and so were not used by other unit programs.

A typical skill-development session began with participants gathering for an informal check-in. The artist would then introduce the day's skill-development activities, which usually involved work toward the culminating project. After offering a brief professional-level demonstration, the artist would quickly move to engage youth in hands-on activities with high-quality materials or equipment. As participants worked, often collaboratively, on their projects, the artist would circulate through the room offering instruction, feedback, and encouragement while making sure the climate of the studio was emotionally safe. Artists regularly solicited participants' ideas and suggestions to incorporate into current and future programs.

Initially the most important hiring criterion was art skills, but Clubs quickly learned that youth development skills and cultural competence were equally important, if not more so.

Successes and Challenges of the YAI Pilot

Implementation research on the pilot sites over a three-year period showed that, with targeted funding at a level that permitted robust implementation of the 10 principles, the Clubs did, in fact, successfully implement high-quality art skill-development programs, though not without challenges (McClanahan & Hartmann, 2017). The research set out to answer three questions:

1. Were youth attracted to high-quality arts programs in a Club setting that offers many different types of programs; and what strategies did Clubs use to recruit youth to the program?
2. Were tweens engaged and participating regularly; and what did it take to ensure engagement and regular participation in a rigorous skill-development program?
3. What was the perceived value to youth and Clubs from high-quality arts programs?

To answer these questions, we examined program participation data from the three years of the pilot, 2014 to 2016. We drew data from BGCA's 2016 National Youth Outcomes Survey on the needs and interests of 225 pilot Club tweens, including YAI participants. In addition, we surveyed participants about their YAI experiences each year, gathering data from 272 YAI tweens. We also facilitated 25 focus groups over three years, speaking with a total of 114 participants, including 32 tweens who had stopped participating in YAI. Finally, we interviewed 19 teaching artists, over 100 other Club staff, and 23 parents from all six sites.

Attracting Participants

The first research question addresses what attracted tweens to YAI programs and how units recruited participants. Findings show that tweens were interested in the arts programs designed according to the 10 success principles. During the three years of the study, 1,280 tweens participated in YAI. Realizing early on that current members were expressing interest in YAI, units focused on internal recruitment. The six units launched 12 skill-development classes in fall 2014. With initial expectations of 15 participants per class per day and an assumption that it would take 20 enrolled youth to meet that expectation, the capacity for the initiative thus was 240 skill-development students per semester. Figure 4 shows that YAI enrollment trended upward over time and surpassed its skill-development capacity in spring 2016.

The three primary art forms—digital, performing, and visual arts—recruited comparable numbers of

participants. However, over time, it became apparent that the enrollment capacity of the art forms varied based on room size, equipment needs, and the amount of individual support required. For example, dance classes took place in relatively large studio spaces and required less individual support, so more than 15 dancers could be served in one skill-development class. Technical art forms, such as digital music or fashion design, took place in smaller spaces, needed a computer or sewing machine for each participant, and required significant one-on-one support; these classes reached maximum capacity at eight to 10 students. Units often offered additional weekly skill-development classes for these art forms in order to serve more youth.

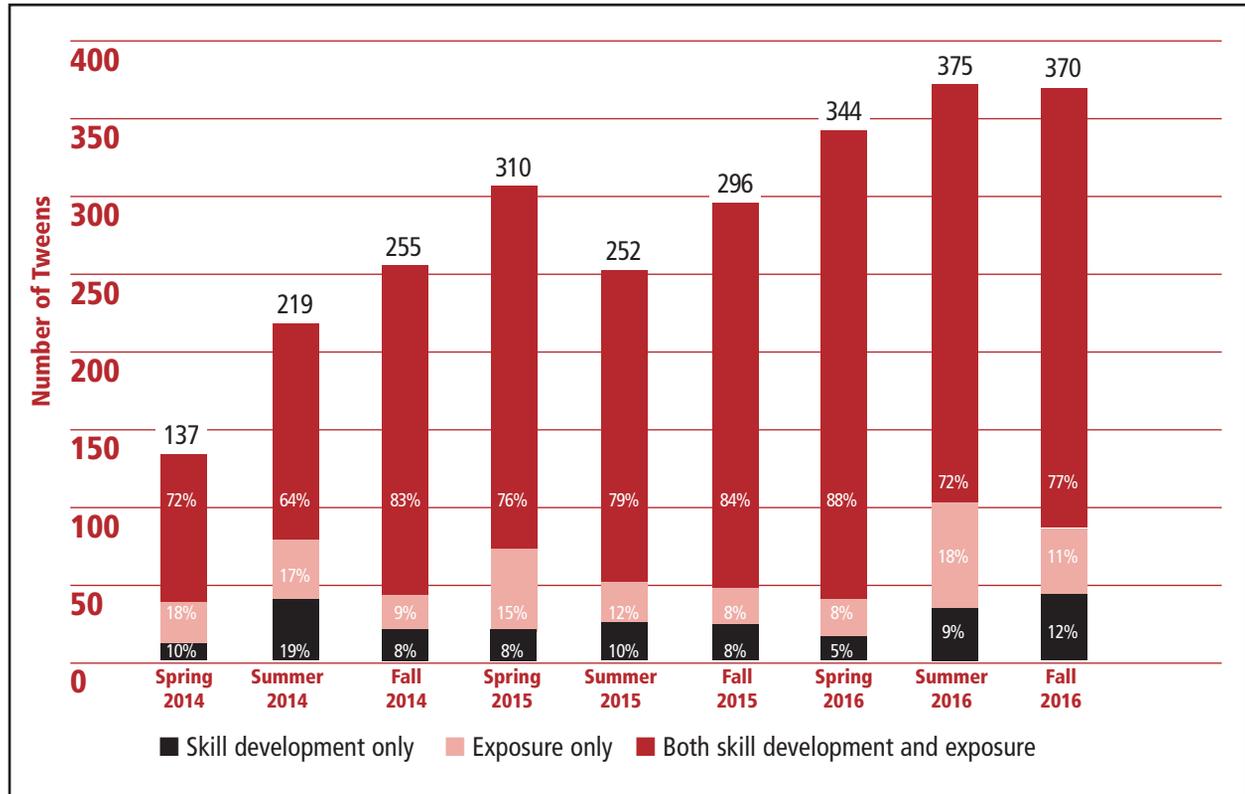
YAI, like other Club programs, primarily served low-income youth of color. Gender and age differences emerged in participation in the three art forms and two class types. In general, YAI attracted more girls than boys, even though Clubs served approximately equal percentages of each gender. However, gender differences varied by art form. Most skill-development participants were girls, but boys were almost as likely as girls to participate in digital art skill-development classes. Girls formed the majority of exposure class participants in performing and visual arts, but boys were the majority of exposure class participants in digital arts. A larger proportion of boys participated in performing arts exposure classes than in performing arts skill-development classes. These participation patterns suggest that boys were willing to try out different art forms but were less likely than girls to commit—except in digital arts, where they were strongly represented.

YAI participants in both types of classes were about evenly divided between older and younger tweens: 47 percent were under 12 and 53 percent were 12 to 14 years old. Young people in the older age group were more likely to participate in digital arts than in other art forms.

Many of the 10 success principles—particularly those that call for professional teaching artists, art-specific spaces, near-professional equipment, culminating events, and youth input—bolstered recruitment efforts by attracting attention to arts programming and making it more visible in the unit. Teaching artists attracted the attention of tweens with their experience and enthusiasm. They worked to build relationships with youth to get them to try out the classes, circulating throughout sites to talk about YAI. Clubs intentionally hired artists a month before their classes began to give them this opportunity to recruit participants. Other unit

Figure 4. YAI Enrollment, 2014–2016

Source: YAI participation data, 2014–2016. Individual students are counted in each program period in which they attended YAI.



staff also reached out to tweens, and participants often recruited their friends. YAI’s new art spaces (Principle 3) and near-professional level equipment (Principle 8) also attracted tweens’ and parents’ attention and supported peer-to-peer word-of-mouth recruitment. One teaching artist described an “explosion of interest” once art spaces were completed.

YAI artists made youth artwork visible and held high-quality culminating events in the unit; these displays supported peer recruitment. At some units, for example, dance performances were filmed and posted on video monitors in the site, as well as on YouTube and Facebook, to engage other youth. At other units, film program participants walked through the sites with their professional video cameras, filming activities and events. YAI tweens also reported that culminating events and other displays, particularly those that took place on site, generated the interest of their peers. One focus group participant explained, “When they see us doing our thing in the studio, it motivates them to think... ‘Hey, this is something I might be able to do.’ It gets them thinking it might be fun for them.”

Another way YAI attracted participants was

by seeking youth input, through surveys and conversations, to identify specific artistic interests. Youth surveys revealed that the vast majority of YAI participants were interested in learning an art form. However, before YAI, the Clubs did not offer artistic skill-building programs to meet this need. Girls, especially, reported that they were interested in YAI because few other Club programs truly attracted or engaged them.

Engaging Participants

Findings on research question 2 revealed that YAI did engage participants: A majority of young people participated regularly and returned the following year. Comments from focus groups illustrate the value participants placed on YAI. One said simply, “It’s the best thing I have ever done.” Another, in response to a question about how to improve the program, wrote, “One thing is that it could be one more day of the week... More days besides Mondays, Wednesdays, and Fridays. I wish it could go on one more day.”

Teaching artists, other Club staff, and parents observed high levels of youth engagement. Staff in

all three Clubs consistently reported that participants were eager to attend YAI classes; some even waited outside the studio door for the program to start. Parents reported that their children talked frequently about YAI at home. One said, “The program is a big deal, family-wise, because they bring home so much of it. We talk about it more than we talk about school. It’s such a big deal—it’s such an accomplishment.”

YAI participants showed that they were willing to put effort into the program. True engagement includes willingness to put concentrated effort into a challenging program (Greene, Lee, Constance, & Hynes, 2013). Creative challenges are necessary for skill development and broader youth development.

High expectations (Principle 4) made YAI programs challenging. In almost half of the focus groups, respondents said that they were embracing these challenges. One dance participant said, “It’s lots of fun, but at some point, you have to do hard work. It’s not just playing around. At one point, you have to get real serious.” The vast majority of YAI participants (1,026 of 1,280) chose to participate in skill-development classes, the more rigorous component of YAI; 254 opted for drop-in exposure classes only.

Embodying Principle 4, YAI skill-development classes required a regular attendance commitment, a feature that differentiated YAI from other Club programs. Artists varied in their implementation of attendance policies. All allowed excused absences for doctors’ appointments or school and family obligations. About half offered rewards for strong attendance or consequences for missing too many classes; for example, participants with good attendance were allowed to go on field trips, take home art supplies, or participate in the culminating event.

More than half of the tweens who enrolled in the demanding skill-development classes participated regularly. BGCA defines *regular participants* as those who come to the Club one or more days per week and *high-engagement participants* as those who come two or more days per week. Across all art forms, more than half of YAI tweens each semester attended at least once per week. Almost one-third attended at least twice per week. In addition, 60 percent of YAI skill-development youth returned the following year. This percentage is

particularly impressive considering that young people typically begin to decrease their involvement in OST programs as they reach middle school.

Early on, Clubs recognized the importance of gaining families’ buy-in (Principle 9), particularly to support the attendance commitment. Parents who were accustomed to picking up their children on the way home from work needed to understand that participants could not leave YAI classes mid-session. Teaching artists quickly realized the need to communicate to parents that, in order to develop skill in the art form, participants had to stay for the full program period (typically two hours) and be present for each skill-development session.

Club staff used common formal and informal methods to build parent relationships. They sent letters and engaged in conversations with parents at the site or in the parking lot. In time, teaching artists obtained parents’ contact information and used texts, email, and social media to update parents and share photos and videos of youth work. Club staff also used formal events, such as open houses, family

nights, and culminating events, to build relationships with parents. A few teaching artists created contracts for youth and parents or organized parent meetings to outline the attendance commitment.

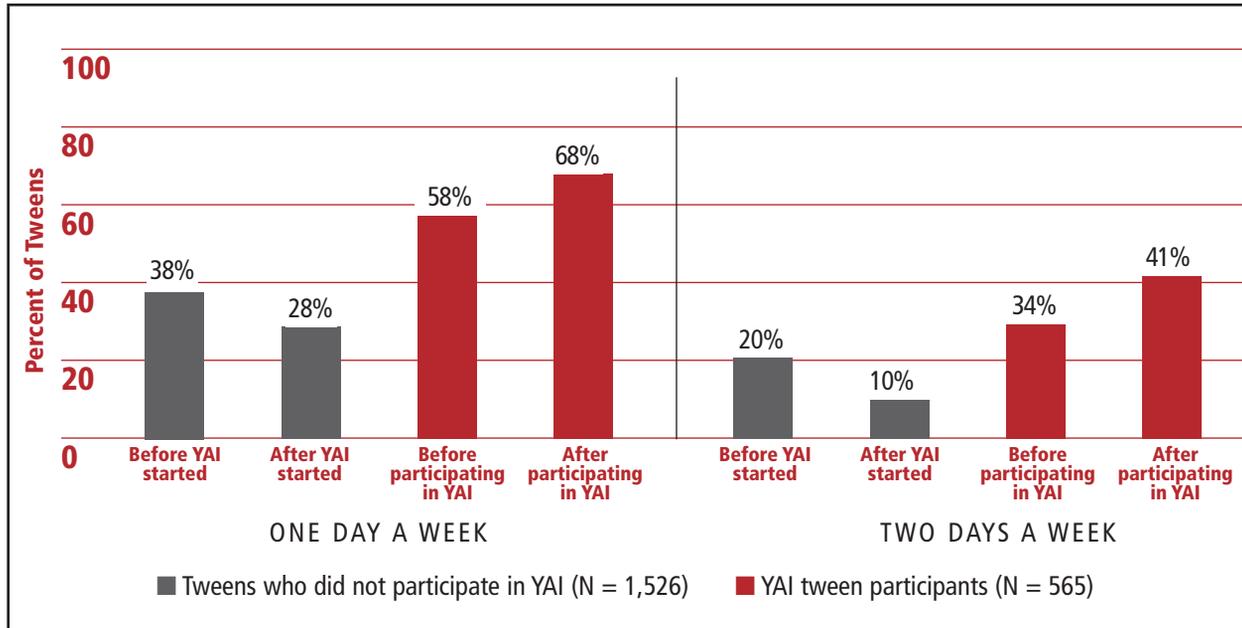
Strong youth development practices, including adult support and positive peer relationships (Principle 6), youth input and leadership (Principle 7), hands-on activities with current equipment (Principle 8), and physical and emotional safety (Principle 10) helped to balance the attendance requirement and maintain ongoing engagement in YAI. Participants and teaching artists consistently pointed to these principles—which were also important for recruitment—as important for keeping youth engaged in challenging art programs, providing the necessary balance for high expectations. Youth in focus groups described these aspects of YAI as elements of the program they particularly appreciated. When implementation lapsed, the absence of these principles became a reason for not participating.

Across Clubs and art forms, participants and parents agreed that young people were engaged and participating regularly because they were interested in the art form. This strong motivating interest in the

Staff in all three Clubs consistently reported that participants were eager to attend YAI classes; some even waited outside the studio door for the program to start.

Figure 5. Club Attendance of YAI and Non-YAI Tweens

Source: Club participation data, 2012–2016



art form is what the Search Institute would describe as a “spark” (Scales, Benson, & Roehlkepartain, 2011). When young people have sparks of enthusiasm, they are more likely to thrive (Scales et al., 2011). At least half of focus group participants described an interest in the arts as a motivating factor for their YAI participation. About one-fifth entered YAI with an existing interest in the art form that YAI helped to nurture. However, about one-third appeared to be developing new interests; they were excited to come to YAI sessions because they enjoyed the art form and wanted to keep learning and practicing new skills. A few participants were beginning to imagine future careers in art. One said, “[Dance class] changed me. At first, I didn’t know what I wanted to be, and now I know what I want to be, and now I know I want to follow with my dreams.”

YAI parents also observed that their children were motivated by the art forms and described seeing their children practicing at home. They were pleased that their children were engaged in productive activities. One parent with a daughter in fashion design described her daughter’s home activities:

She was really immersed in [fashion design]. There are times where I can’t find her, and I’ll holler and say, “Where are you?” And she says, “I’m downstairs sewing.” ... She uses my sewing machine more than I do.

Other parents reported that their children were engaged at home in filming videos or drawing and painting. One said, “All [my child] does is dance, dance, dance. But before, she wasn’t really into it.”

Middle school youth have many barriers to OST participation. Clubs could address some, but not all, of these barriers. In particular, Club leaders had to manage unit-wide schedules to reduce competition with other programs of high interest to youth. Teaching artists had to manage program growing pains, particularly keeping the content fresh and challenging for program veterans while integrating new, younger participants. Toward the end of the study period, a few teaching artists experimented with project-based instruction to engage more experienced youth and permit them to work independently from younger students.

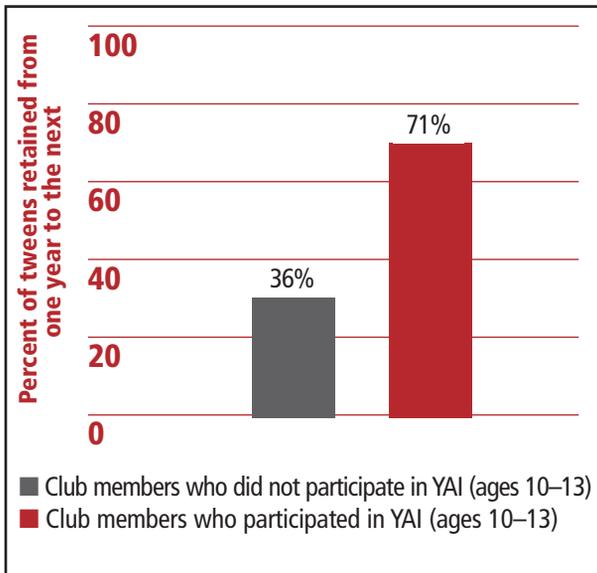
A barrier to participation that Clubs could not address as successfully was outside competition. Young people who had discontinued their attendance reported in focus groups that school and home obligations interfered not only with YAI but with Club attendance in general. Older tweens were more likely than younger tweens to report these conflicts, which included homework, school sports practice, and babysitting responsibilities.

Providing Value

Research question 3 examines the perceived value of high-quality arts programs to youth and Clubs. The

Figure 6. One-Year Club Retention among YAI and Non-YAI Tweens

Source: Club participation data (2012–2016)



data suggest that arts programs have the potential to increase the involvement of tweens and retain them over time. These program also can foster social and emotional development as well as artistic skills.

Figure 5 shows that YAI participants increased their Club attendance after joining YAI, while non-YAI Club members' attendance declined over the same period. YAI participants also had higher year-to-year retention rates than non-participants, as shown in Figure 6. Though the data do not allow us to conclude that YAI *caused* youth to return to the Club, these findings do suggest that YAI is a promising strategy for keeping tweens engaged.

Respondents reported that YAI participants experienced social and emotional growth, in keeping with research showing that high-quality OST programs bolster social and emotional development when young people participate regularly (American Institutes for Research, 2015). Growth in several social and emotional skills, including self-awareness, self-management and persistence, and relationship skills, was observed by parents and Club staff and reported by YAI participants.

Parents and Club staff commonly described how participants increased their self-confidence through their experiences with the teaching artists, their efforts to meet the program's high expectations, and their work toward culminating events. One parent offered this typical comment:

I think [YAI has] exceeded the goals I set. [Teaching artist] has performed a miracle on my daughter. She can dance now! She's not shy, she doesn't mind getting up in front of people—and she would not do that. She's done a 180 as far as her personality. She wants to do more now, and she was not like that [before].

Participants in four focus groups also described the importance of performing or sharing their artwork. These experiences helped them “get over shyness,” as one put it, or overcome fears of performing—improvements that may indicate growing self-confidence.

Although teaching artists and participants noted the importance of developing confidence, they also said that YAI helped participants move beyond blind self-assurance to accurately assess their skills. One participant got a reality check that led him to work to improve:

It's definitely changed my confidence and show-off attitude. When I first came, I thought I was the best at everything. I realized when I got in the [recording] booth, I didn't sound as good as I thought I did. [The teaching artist] explains to you that when you come in this program, you are not the best; you're supposed to build your way up to the best. You just can't come into the business as the best.

Respondents described changes in YAI participants' self-management skills, crediting the program's high expectations and participants' relationships with teaching artists. One parent reported:

He makes sure he has his dance clothes in his book bag, and he makes sure he commits himself to being here.... He's finishing his work at school, because he knows that, when he gets to the Club, he has to eat and go to dance.... He knows he can't be late because then [teaching artist] won't let him dance right away, so he's like, “I gotta get this work done”—which is great for school.

One Club staff member said, “You can see them being a little bit more responsible, being more of a leader rather than causing trouble or causing issues.”

Some YAI youth also appeared to be developing the ability to persist in challenging artistic tasks, another aspect of self-management. This competency was a clear theme in five youth focus groups as well as in

interviews with parents and Club staff. Several dance participants described learning lessons about hard work and practice. One said: “I love dancing, and if you like this, you have to practice a lot to get better and better.” A visual arts student similarly reported, “You have to take your time on doing your best because, if you rush, it may not turn out.”

Parents, staff, and youth reported that YAI fostered relationships between young people who would not otherwise have been friends. For example, a staff member observed that YAI “made friendship with kids you wouldn’t think would have friendships, because it’s bringing kids from their different groups.”

Finally, YAI created the conditions in which youth could develop art skills, including understanding how to use and care for tools, materials, and space. Research has shown that these skills are foundational components of artistic development (Hetland, Winner, Veenema, & Sheridan, 2007). YAI’s professional artists, high expectations, current equipment and technology, and high-quality art spaces all created the environment for artistic skill development. In three-quarters of the focus groups, participants provided concrete examples of skills they learned, such as how to draw cartoons and 3D images, how to sew, how to create special effects, and how to do basic dance moves. Participants accepted their beginner status as they described learning to use video cameras, editing software, and sewing machines or to care for paintbrushes. These YAI participants were improving their ability to use and care for the tools and materials of their art form.

Recommendations

The YAI initiative demonstrated that an arts program based on the 10 success principles can attract and engage tweens, foster positive youth development, and increase participation and retention in the implementing organization. This research suggests strategies OST providers can use to attract tweens and engage them in arts programming.

Make Arts Visible and Valued

Implementing the 10 success principles required well-equipped studio spaces, professional teaching

artists, new equipment and technology, and public culminating events. These aspects both made YAI visible and conveyed the importance of the arts in ways that naturally attracted youth. Multicomponent OST providers seeking to recruit youth to arts programs should assess the degree to which the arts are visible and valued in their organization.

Offer Multiple Engagement Strategies

Many participants committed to the high-quality arts program, but some preferred to dabble. YAI therefore offered drop-in exposure classes in addition to the more intensive skill-development classes. OST programs seeking to recruit tweens should offer both lower- and higher-intensity opportunities to meet different needs. In order to offer appealing exposure experiences that can lead to deeper involvement, programs should carefully structure these classes to fit the art form and the participant age range.

Balance High Expectations with Adult Support

Initially, Club leaders feared that YAI’s attendance requirement would deter participation. However, the attendance commitment was later recognized as a distinguishing characteristic that helped to engage tweens. The attendance expectations generally were flexible enough to accommodate tweens’ other commitments, but rigorous enough to challenge participants in ways that helped them to develop artistic skills. High expectations and requirements that they commit to the program do not deter tweens—in fact, they support deep engagement, especially when reinforced by supportive adult mentors and strong youth development practices.

Engage Families

Even though tweens have more autonomy than younger children, YAI staff found that they needed to enlist parents to help participants commit to regular attendance. OST programs for tweens often struggle to connect with parents, but successful communication is worth the effort. YAI artists used emails, text messages, and social media to engage parents; culminating events deepened parent support.

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Maintain Program Quality

The strong youth development practices identified in the 10 success principles were essential to retaining tweens in YAI. When young people left the program, their reasons often reflected lapses in implementation, such as disruptions in relationships with teaching artists or peers, lack of response to their interests, inadequate hands-on practice, or challenges with physical or emotional safety. Programs seeking to retain tweens can start by assessing program quality, particularly the strength of core youth development practices.

Develop Sparks

Youth need opportunities to develop their artistic sparks with the support of adult mentors. To address this need, multicomponent OST programs can add to or expand their offerings in both traditional and nontraditional art forms. Providers should hire professional teaching artists who can mentor participants in the art forms; they should also attend to the other nine success principles of high-quality arts programming.

Toward the Future

Based on the promising evidence from this initial pilot effort, BGCA is continuing to refine the YAI model in a second pilot phase. Five new Clubs will build on lessons learned from the first three Clubs to replicate YAI in new settings while seeking strategies to improve cost-effectiveness. Research will continue to document lessons about creating high-quality arts programs that attract tweens.

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How to Introduce Creative Youth Development into an Existing Afterschool Program

The Casita Maria Story

Anne Dunning

Out-of-school time program leaders know that engagement is critical to their ability to achieve youth outcomes. Programs have to ignite and sustain participants' interest in order to help them thrive. According to the Search Institute, "The major component of thriving is the concept of 'sparks'—the interests and passions young people have that light a fire in their lives" (Scales, 2010). Research into these "sparks" identified creative arts as the top-ranked interest among teens aged 12 to 17, cited by 54 percent of teens surveyed (Benson, 2008).

Programs that seek to engage participants in arts-based programming may be drawn to creative youth development (CYD), a youth-focused, holistic

approach to learning through creative expression. As the Creative Youth Development National Partnership (2018) defines it, "*Creative youth development* is a recent term for a longstanding theory of practice that integrates creative skill-building, inquiry, and expression with positive youth development principles, fueling young people's imaginations and building critical learning and life skills."

After a period of learning about CYD and exploring its suitability, Casita Maria Center for Arts and Education in the Bronx, New York, launched an initiative to integrate CYD principles into its afterschool programs. Though Casita Maria built on a growing base of knowledge about these principles

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and how to implement them, its staff had to integrate new practices into the existing program and extend the principles to reach youth with a wide range of ages and experience levels. As an initial pilot phase of the program launched in spring 2018, I was engaged as its evaluator. The resulting observation and evaluation has provided useful information for practitioners who want to reap the benefits of CYD programming.

Casita Maria and Creative Youth Development

Founded in 1934, Casita Maria has a long history of providing enriching afterschool and summer camp learning and arts opportunities in East Harlem and the South Bronx. According to Executive Director Haydee Morales, Casita Maria aims to “create a high-quality, fun learning environment that fosters excellence in creativity, learning, and life” (Morales et al., 2019). Programming serves young people from kindergarten through high school. The organization has owned and operated its current arts learning facility in the South Bronx since 2009. The community is 76 percent Latinx and 21 percent African American, with a growing constituency of new immigrants and migrants. Casita Maria has built ongoing relationships with schools, the school district, and local artists and arts organizations, all of whom support and enrich the educational programming.

Casita Maria launched its CYD initiative in 2018, after studying the approach, building buy-in from the organization’s leaders, and designing a customized program with support from the Rockefeller Brothers Fund. The existing afterschool programming already included a robust music program, including instruction in violin, percussion, and piano, as well as chorus and musical theater. The organization’s commitment to creative arts programs in the community was evident in its participation in BLITZ (a Bronx-based Latin jazz ensemble with Arturo O’Farrill), the annual South Bronx Culture Trail Festival, The Mural at Casita Maria, and exhibitions in the Casita Maria Gallery. Though the educational and creative arts programming was successful, staff lacked a shared institutional understanding, language, and training base that would center the work around a common goal. Leaders made a commitment to integrating CYD in order to better align Casita Maria’s youth programs with the organization’s belief in the arts as a community-building resource and as a means of empowering youth to take collective action toward social justice.

Why Integrate CYD Principles?

CYD’s focus on creativity and engagement with professional artists and arts activities supports the “spark” that activates young people’s interest and engagement (Scales, 2010). Although CYD can focus on artistic skill-building (McClanahan & Hartmann, 2018), it is also a youth development approach that can be applied broadly to learning through creative inquiry in diverse fields. The principles of CYD (see box) are consistent both with the tenets of positive youth development and with best practices in many arts-based afterschool programs.

Ten Principles of Creative Youth Development

Montgomery, Rogovin, and Persaud (2013) identify 10 principles of effective CYD programming:

1. Instructors are professional, practicing artists and are valued with compensation for their expertise and investment in their professional development.
2. Executive directors have a public commitment to high-quality arts programs that is supported by sustained action.
3. Arts programs take place in dedicated, inspiring, welcoming spaces and affirm the value of art and artists.
4. There is a culture of high expectations, respect for creative expression, and an affirmation of youth participants as artists.
5. Programs culminate in high-quality events with real audiences.
6. Positive relationships with adult mentors and peers foster a sense of belonging and acceptance.
7. Youth participants actively shape programs and assume meaningful leadership roles.
8. Programs focus on hands-on skill building using current equipment and technology.
9. Programs strategically engage key stakeholders to create a network of support for both youth participants and the programs.
10. Programs provide a physically and emotionally safe space for youth.

CYD has been documented primarily in teen learning environments (Hirzy, 2011; Levine, 2002; Montgomery et al., 2013). However, with modifications, it can be adapted for other age groups, including tweens (McClanahan & Hartmann, 2018).

Multiple intelligences theory (Gardner, 1983) holds that individuals process information in many different ways. Studies indicate that providing multiple ways for participants to access material improves learning outcomes (Hattie, 2012). With its emphasis

on experiential learning and creative expression, CYD has the potential to develop multiple intelligences (Gardner, 1999), including those not typically developed in school classrooms.

Research is proving that CYD learning has impact on participants' critical thinking skills, well-being, and confidence. In her 2018 blog post "There Are Not Enough CYD Programs," Denise Montgomery states, "Many youth participants in CYD programs attest that their involvement changed the trajectory of their lives. Additionally, numerous young people state that participation in a CYD program effectively saved their lives." Many authors have established the value of afterschool arts programming, including high levels of youth engagement that contribute to substantial learning and enhanced critical thinking (Holloway & LeCompte, 2011; Lampert, 2011). Other benefits for young people include heightened confidence and sense of agency (Dworkin, Larson, & Hansen, 2003).

Integrating CYD into an Existing Program

The evaluation of Casita Maria's CYD programs was built around a series of 46 observations I conducted between May and December 2018. I not only observed CYD components in the actions of adult leaders and program participants but also discussed program intentions and delivery with Casita Maria staff. For consistency, I worked with an evaluation and engagement rubric, which I completed at each observation. This rubric enabled me to compare sessions prior to, during, and after implementation of CYD principles. In addition, I designed a self-report survey, which I administered to 148 participants in grades K–5 at the beginning of programming and to 131 participants at the end. Survey responses provided data on trends by grade level but not on individual progress.

For practitioners who are interested in integrating CYD principles into existing afterschool programs, the Casita Maria experience provides some useful insights. The pilot program in 2018 helped staff identify five approaches that continue to facilitate the ongoing process of integrating CYD principles:

1. Create a learning environment that is distinct from traditional school-based structures and learning approaches young people regularly encounter.
2. Focus on building and sustaining positive caring relationships with adults.
3. Value participants' creativity and provide platforms to showcase their creative work.
4. Integrate CYD principles cumulatively and in ways

appropriate to young people's cultural experiences and developmental growth.

5. Foster community and a sense of belonging.

Distinctive Learning Environment

To change the perceptions and behaviors of participants, programs must change the environment and what it signals about their experience. CYD Principle 3 is that "arts programs take place in dedicated, inspiring, welcoming spaces and affirm the value of art and artists" (Montgomery et al., 2013).

Casita Maria maintains several dedicated arts studios at its facility on Simpson Street in the Bronx. These bright, inviting spaces offer room to move around and access to equipment and materials. A dedicated lounge space on the sixth floor allows teens to create their own space and share their inspirations with others. Because it owns the Simpson Street facility, Casita Maria has access to spaces that other afterschool programs might not regularly be able to use, including not only the arts studios but also an auditorium and gym.

Still, many of the rooms in the Simpson Street building, as well as in the Harlem facility, are traditional classrooms. Casita Maria staff thus have experience with a common challenge in afterschool arts programming: They are using a physical environment that was not designed for the work they are doing and to which they can make only minimal changes. Teaching artists and group leaders have adopted the following practices to establish creative and collaborative environments within the physical constrictions:

- Positioning youth in the space. Especially effective are arrangements in which youth and mentors sit in a semi-circle or a circle.
- Enabling movement. Especially for younger children, the ability to move around encourages creativity and signals that this environment is different from school.
- Providing a forecast. Group leaders post a written greeting and overview of every session. This visible reminder both sets expectations and gives participants the information they need to feel in control of the experience.
- Developing a creative and interactive environment. Group leaders may play music, show a video, start a song, or encourage dialogue among youth to get creative juices flowing.
- Providing tools. Open access to tools (such as cameras, art supplies, or laptops), inspirational images, or games can allow youth to explore their creative instincts in their own time.

“ Language used in program sessions should assert and acknowledge that we are all artists, musicians, writers and creatives. Similarly, our spaces are not classrooms, but community studios, and youth participants are identified not as students but by the activity they are engaged in. All these changes help to distinguish CYD programming as separate from the school environment.”

— *Creative Youth Development at Casita Maria Center for Arts & Education: Staff Toolkit* (Morales et al., 2019)

- Transitioning from the language of school. Rather than using such terms as *teacher*, *student*, and *classroom*, program staff use words like *mentor*, *artist*, *scholar*, *maker*, *practice*, *rehearsal*, and *studio*.

Knowing that many environments for young people are rules-based, Casita Maria set up its CYD environments to give young people opportunities to shape own their experiences. Rather than setting rules, leaders work with participants to shape behavioral norms and set shared expectations—moving from top-down rules to self-generated behavioral norms. In ways that are appropriate to participants’ ages and development, Casita Maria follows CYD Principle 7 (Montgomery et al., 2013), giving participants input into programming and supporting them to assume leadership.

In the lower grades, children need structure to stay focused and engaged. Group leaders and teaching artists give these children opportunities to make creative decisions within set projects or to choose between specified options. Children are invited to take limited leadership roles within their groups. A session in which sixth graders learned to make their own simple bath salts shows how decision-making and leadership opportunities are inherent in Casita Maria’s CYD approach. Before CYD integration, the children were given pre-measured quantities of ingredients and a recipe. They simply followed the group leader’s

instructions to assemble the bath salts. After CYD integration, small groups of eight to 10 children were seated around shared tables on which ingredients were placed. Each participant took a turn reading the instructions and demonstrating a step in the process by measuring out and adding an ingredient. Then group members passed the materials around so they could add them to their own mixtures, often helping each other as needed. Throughout the process, the group leader prompted participants to talk about why they thought specific ingredients were being added or to describe changes they observed as they added ingredients.

At later developmental levels, participants’ opinions and ideas become more integral to program development, and the programming emphasizes autonomy. Youth shape some of the programming and influence program elements including content, space design, and snack options. Educators, teaching artists, and program staff are open and flexible, encouraging participants to share their suggestions and demonstrating trust by accepting and integrating these ideas. For example, I saw high school youth suggest ways to restructure the daily agenda; they also identified topics they wanted to explore in their projects.

Positive, Caring Relationships

One of the tenets of CYD programming, and of positive youth development generally, is the opportunity for young people to engage in positive mutual learning relationships with trusted adults (CYD Principle 6). At Casita Maria, group leaders, teaching artists, staff members, and tutors work with participants regularly, getting to know them and supporting their individual trajectories.

An important element of the Casita Maria pilot initiative was training and coaching to help group leaders and teaching artists shift from traditional classroom “teaching at” relationships to CYD-informed “learning with” relationships. The Casita Maria team encourages educators, teaching artists, and program staff to celebrate participants’ successes, giving young people confidence and driving their desire to succeed. The educators and creative arts teaching staff regularly highlight the creative work or ideas of individual participants as examples for others.

For example, in one elementary-level session I observed just before the December holidays, the group leader helped participants share their holiday traditions. Children created ornaments and symbols of their own family holiday traditions to put on a tree the

leader had drawn on the board. The children seemed excited to put their ornaments on the tree. The group leader admired their work and then asked the children to share a story. Every participant had a special moment and was celebrated by the group leader.

Program educators, teaching artists, and staff are encouraged to approach work with the youth as a process of shared inquiry in which they support participants' curiosity, draw out ideas, and ask questions rather than giving answers. Participants are asked to share what they think, not just what they know. An attitude of "Let's see what's possible," rather than an insistence on existing structures and approaches, informs adults' responses to participants' ideas.

Value Participants' Creativity and Showcase Work

Though Casita Maria programs were always committed to high-quality arts learning (CYD Principle 2), they had not always showcased participants' creativity or shared the quality of their work (Principle 5). As part of the CYD integration, program staff renamed the Youth and Community Gallery as the Young Artists Gallery and dedicated the space to the artwork of Casita program participants only. At the same time, staff more intentionally structured culminating program performances to raise awareness of and

demonstrate respect for the young people's creative work. Opportunities were added to showcase youth talent at events such as the South Bronx Culture Trail Festival and openings in the Casita Maria Gallery.

Casita Maria strategically engages key stakeholders to create a network of relationships and connections to support the afterschool programs and participating youth (CYD Principle 9). Through its Creative Arts program—a public performance and exhibition program for local communities featuring the work of professional artists—Casita Maria engages with professional artists, musicians, and creative leaders. Seeing this engagement as an important asset for CYD, Casita Maria has connected the professional artists in these programs with afterschool participants. For example, in fall 2018, Casita Maria gave teens an opportunity to work with a professional mural artist. The teens also participated as subjects for new works to be exhibited both at Casita Maria and at the Massachusetts Museum of Contemporary Art. Such opportunities not only enrich learning opportunities for Casita Maria participants but also provide real-life examples of creativity and collaboration in action.

As part of this connection, Casita Maria programs provide the best possible tools and materials, such as musical instruments, art supplies, and computers. Program participants are expected not only to use these tools in appropriate ways but also to maintain them carefully. For example, all young musicians in the violin program receive violins and bows that they take home. They are taught the proper ways to care for, store, and transport their instruments. The staff CYD toolkit instructs staff to "have program participants mentor each other on how to care for equipment."

Developmentally and Culturally Appropriate CYD Integration

Casita Maria's programs are structured to support the needs of individual participants as they develop. Recognizing differences in how participants learn, and then supporting their development with appropriate programs and with personally and culturally relevant material, engages young people and encourages them to express their own creativity.

Casita Maria's comprehensive programming creates a cumulative learning and development environment for many participants. Year-to-year retention rates are high and increase with age: 40 percent in elementary programs, 65 percent in middle school, and 90 percent in high school.

“At Casita Maria, young people participate in performances and exhibitions including the Young Artist Showcase, South Bronx Culture Trail Festival, holiday shows, and recitals. These events are a great way to boost engagement. When young people outside of Casita Maria see what's going on, they want to join, too. Culminating events also allow youth to be seen in a new way outside of their family and friends.”

— *Creative Youth Development at Casita Maria Center for Arts & Education: Staff Toolkit* (Morales et al., 2019)

The programs focus on age-appropriate aspects of creative development at each stage. In the primary grades, children tend to interact well with each other and have strong relationships with caring adults. Casita Maria's programs for these children focus on creating a culture of high expectations, valuing creative expression, and affirming participants as artists. CYD practices also encourage children to start to develop critical thinking and problem-solving skills. For example, participants in one grade 2 storytelling class I observed were prompted at various points in a story to share ideas about how the protagonist could solve problems, such as how to get into a giant's home without waking the giant.

In middle school, young people are trying to figure out who they are and how they relate to others, including adults. Casita Maria programs focus on positive relationships with adults and peers to foster a sense of belonging and acceptance. As participants' capacities increase, staff introduce use of modern equipment and technology for hands-on skill building. For example, middle schoolers can work with software to make short movies. High-quality public culminating events that showcase their work motivate young people to do their best. The programs build autonomy by gradually increasing opportunities for participants to take on group leadership. For example, in an improv session, sixth- and seventh- grade participants took turns leading the group in movements based on the sequence established by previous leaders.

At the high school level, the CYD principles really come into play. Older youth need opportunities to engage in problem solving, to actively shape programs, and to assume meaningful leadership roles. For example, young teens who identified as female worked together to plan and deliver a leadership summit for girls, incorporating both artistic expression and advocacy to elevate young women's voices.

Programs and curriculum units are inclusive and differentiated so that all participants can find their own voices and personal resonance with materials. Casita Maria's CYD programs are designed with a mix of independent and collaborative activities. Young people who need opportunities to build confidence to speak up can do so through independent work, while those who need to build teamwork and listening skills can do so through group work.

One of the most important connections in Casita Maria's integration of CYD practices into existing programs was linking the activities in the afterschool programs to exhibitions and programming in the

Creative Arts programs. By experiencing the work of professional artists in tours of the Casita Maria Gallery and in performances of art forms such as Latin jazz, participants were inspired to experiment with their own creative expressions. They were able both to appreciate the work of professional artists and to see themselves as artists.

Even more valuable for many participants was the connection between the Creative Arts programs

“Consistent with CYD practice and in an age-appropriate way, Young Artists choose their medium and style, work in peer groups, and focus on social justice issues as they analyze real-life activists and imagine their own *Mujeres Guerreras/Warriores*.”

— *Creative Youth Development at Casita Maria Center for Arts & Education: Staff Toolkit* (Morales et al., 2019)

and their own cultures. One particularly effective unit engaged participants in creating their own female superheroes based on *La Borinqueña* by Edgardo Miranda-Rodriguez, a female superhero whose powers are drawn from the history and mysticism of Puerto Rico. This inspiration encouraged many young people to explore their own cultural roots in Puerto Rico; to learn more about social justice issues and community activists; and to experience strong, positive characters who are members of their own communities.

Community and Belonging

The success of the CYD integration depended on encouraging participants to feel safe and to experience Casita Maria as a place where they belong.

One way Casita Maria fostered community and belonging was to create shared rituals, such as consistent introduction and conclusion rituals for group sessions. A closing ritual, for example, might include sharing, reflection, and transition. The teaching artist or group leader might initiate the closing ritual by bringing participants together into a circle and asking who would like to share what they created that day. After

the group celebrates the accomplishments of those who choose to share, the teaching artist might ask all participants to reflect on their experience, asking questions like “What did you discover today? What surprised you? What would you like to learn more about?” To transition out of the activity, the leader might help participants get ready for the rest of their day with a simple breathing or stretching exercise. Such shared rituals develop relationships among participants and leaders, set expectations, and establish a safe space for creative expression by separating the experience from other activities.

Another way to foster belonging is to encourage participants to personalize the space in which they

“You should encourage youth to contribute their own ideas, artwork, or signage to the space.”
— *Creative Youth Development at Casita Maria Center for Arts & Education: Staff Toolkit* (Morales et al., 2019)

work. By designing the space together, they develop a feeling of ownership and create spaces that feel personal and welcoming.

Casita Maria further enhances community and belonging by involving participants in the process of establishing and enforcing expectations through group-defined behavioral expectations. Call-and-response cues, for example, help to focus participants’ attention. I saw the teaching artist in musical theater program sessions refocus middle schoolers’ attention with the call “Quiet on the set!”—to which all participants would reply in unison, “Quiet!” Collaborative work, from simple tasks such as volunteering to distribute materials through to the advanced connections that come from mentoring peers and working on group projects, also helps to build a sense of belonging.

Youth Outcomes

At this early stage of the evolving integration of CYD principles into Casita Maria’s programs, the initial evaluation has indicated positive trends in several key areas of youth development. Using a rubric to assess

participating youth, the evaluation tracked five metrics of youth development: creativity, critical thinking, leadership and teamwork, identity and community building, and problem-solving capacity.

The CYD approach led to unique opportunities and learning for many program participants. In an all-girls comedy improv session in which the activity was to form the shape of a letter with their bodies without speaking to each other, a participant who was confident and dominant in the group appeared to struggle to convey her approach nonverbally. As I observed the exercise, she gradually began to collaborate with the others in her group. The result was an approach that incorporated the ideas of several girls to achieve the goal.

In self-assessment survey results, 44 percent of elementary-level respondents indicated an increase in their own perceptions of their critical thinking. Similarly, 20 percent of respondents reported increases in problem-solving ability, 17 percent reported stronger identity and community building, and 17 percent saw improvements in creativity. Middle school participants indicated increases in their perceptions of their critical thinking (43 percent of respondents), teamwork and leadership (57 percent), and problem solving (20 percent).

One Casita Maria teen who attended the college fair expressed to a cable reporter his appreciation for the way in which the fair presented a full range of opportunities to the community’s youth. Saying that he wanted to establish his own drama school, he said he hoped to return to the college fair to offer access to the arts to other young people in Casita Maria’s programs.

Next Steps

Integrating CYD principles at Casita Maria was a relatively smooth process. Existing resources and relationships, including Casita Maria’s creative arts programs and established afterschool arts curriculum, were definitely assets. Casita Maria’s diverse staff team and experienced teaching artists were also critical in translating CYD principles to reach culturally diverse youth across a wide age range.

Casita Maria intends to continue to track youth development outcomes to better establish the impact of CYD programming, including the longitudinal impact over time. Given the population with which Casita Maria works, comparative studies would facilitate better understanding of how CYD approaches support the needs of such groups as recently arrived migrants, immigrants, and English-language learners.

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Partnerships to Transform STEM Learning

A Case Study of a STEM Learning Ecosystem

Patricia J. Allen, Kristin Lewis-Warner, and Gil G. Noam

Science, technology, engineering, and mathematics—the disciplines known as STEM—are critically important for economic and societal development. STEM has increasingly been integrated in educational research and practice, as the national agenda has shifted in response to several high-impact reports, including *Rising Above the Gathering Storm* (National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, 2007), which emphasized the need to increase STEM proficiency to prepare young people for the STEM workforce and to promote innovative capacity and prosperity.

One of the most notable transformations in the STEM educational landscape in the last decade is the rise of the out-of-school time (OST) sector as a leading provider of STEM enrichment (Krishnamurthi, Ottinger, & Topol, 2013; National Research Council, 2015). High-quality OST programs provide young people with rich, engaging learning experiences, coupling STEM concepts with hands-on activities that foster youth voice and choice and apply STEM

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to real-world social contexts (Lyon, Jafri, & St. Louis, 2012; Noam & Shah, 2014). A large and growing literature documents the positive effects of OST STEM on youth outcomes (e.g., Allen et al., 2019; Dabney et al., 2012; Young, Ortiz, & Young, 2017). Practitioners, researchers, and policymakers show increasing interest in strategic partnerships among OST providers, K–12 schools, and other community organizations (Anthony & Morra, 2016; Bevan et al., 2010; National Research Council, 2015) to improve access to quality STEM learning, especially among underserved youth, and to increase the number of young people who pursue STEM careers (National Research Council, 2015).

To better understand how communities can develop and leverage partnerships within and beyond OST to improve STEM programming, we conducted an in-depth case study of one of the first STEM learning ecosystems in the U.S.: the Tulsa Regional STEM Alliance in Oklahoma, which is working to improve STEM teaching and learning from its home base in the OST sector. This article begins by describing the STEM Learning Ecosystems Community of Practice (CoP), a national initiative that cultivates dynamic community partnerships to provide high-quality STEM learning. After presenting our research frame and outlining our methodology, we summarize key findings from the Tulsa alliance, focusing on how an OST-led STEM learning ecosystem forms, develops, acts, evolves, and sustains itself over time. Our conclusions focus on how the OST field can lead a national movement to transform STEM education by developing strong partnerships with schools, businesses, and STEM institutions; by investing in quality standards; and by building data systems and common measurements to support continuous improvement.

STEM Learning Ecosystems Community of Practice

The federal government’s most recent five-year strategic plan for STEM education identified strategic partnerships through STEM learning ecosystems as a key to success (National Science and Technology Council, 2018).

The STEM Learning Ecosystems CoP was developed to bridge the many political, cultural, pedagogical, financial, and logistical divides among the diverse sectors that are invested in STEM (Traphagen & Traill, 2014). Launched by the STEM Funders Network at the Clinton Global Initiative in 2015 and organized by the Teaching Institute for Excellence in STEM, the STEM Learning Ecosystems CoP promotes local collaborations among school districts, OST providers, businesses, cultural institutions, research organizations, and funders (Figure 1). The CoP’s mission is to “spark young people’s engagement, develop their knowledge, strengthen their persistence and nurture their sense of identity and belonging in STEM disciplines” (STEM Ecosystems, 2019b).

The STEM Learning Ecosystems CoP framework encompasses the four strategies shown in Table 1. All ecosystems are also provided with 10 aligned design principles (Traill, Traphagen, & Devaney, 2015), which include cultivating dynamic, diverse partnerships; experimenting with creative means of partnering across sectors; and increasing the quantity and quality of active, inquiry-based formal and informal STEM learning opportunities for all, including for young people historically underrepresented in STEM. Individual ecosystems are encouraged to adapt the strategies to suit their communities.

Now in its fifth year, the STEM Learning Ecosystems CoP has scaled rapidly, growing from 27 commu-

Figure 1. STEM Learning Ecosystems Model

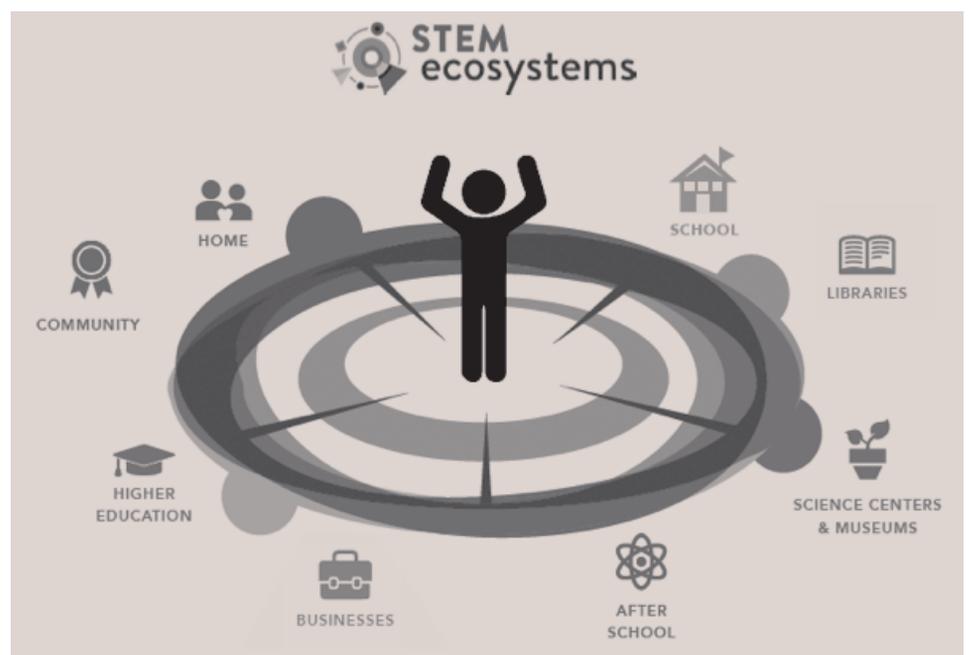


Table 1. STEM Learning Ecosystems CoP

Source: <https://stemecosystems.org/strategies>

Strategy	Definition	Examples of Actions
Cultivate cross-sector partnerships	Assess gaps, identify partners, and determine collective goals based on each community’s needs, assets, and interests	Identifying a lead organization, engaging a broad range of stakeholders from key sectors, assessing the community’s readiness to collaborate, and defining the landscape and potential gaps
Create and connect STEM-rich learning environments	Ensure that STEM learning opportunities are high quality, universally accessible, youth centered, and connected so learners can deepen their skills and interests and tackle increasingly complex challenges	Aligning with reputable and vetted national standards, connecting school and OST STEM learning, and employing evidence-based strategies to promote successful STEM learning for all, especially traditionally underserved students
Equip educators	Build educators’ capacity through high-quality, relevant professional development, cross-sector experiences, and sharing of effective practices	Designing and implementing high-quality training, connecting educators with private and public sector STEM employees, and developing approaches to continuous improvement (e.g., data sharing to increase quality)
Support youth pathways	Enable young people to become engaged, knowledgeable, and skilled in the STEM disciplines as they progress from childhood into early adulthood	Connecting young people to STEM mentors, teaching about the range of STEM careers and opportunities starting at an early age, and creating new credential models (badging, certifications, etc.).

nities in the U.S. in 2014 to 89 communities in the U.S., Canada, and Africa in 2019. These 89 ecosystems, each consisting of an individual city or region, collectively serve tens of millions of young people by engaging school districts; informal programs; and philanthropic, business, and industry partners. Ecosystem leaders have invested thousands of hours to “cultivate the ecosystem,” defined by initiative organizers as “collaborating across sectors in new and creative ways to increase equity, quality, and STEM learning outcomes for all” (STEM Ecosystems, 2019a).

Research Goals and Framework

Now that the STEM Learning Ecosystems CoP is well established, the field can begin to understand how communities have implemented its strategies to change STEM learning models. We conducted a case study of an established community that met the following criteria: It leads from the OST sector, has participated in the CoP since its launch in 2014, is representative of the partnership and demographic composition of the initiative, has established common

assessment strategies that can be used within and across ecosystems, has evidence of observable change in the design and delivery of STEM learning in and out of school, and was able to engage in the case study research with full transparency. One ecosystem met all these criteria: the Tulsa Regional STEM Alliance (TRSA) in Oklahoma. In addition to meeting the criteria, TRSA is a credible, highly engaged organization committed to collaborative practice.

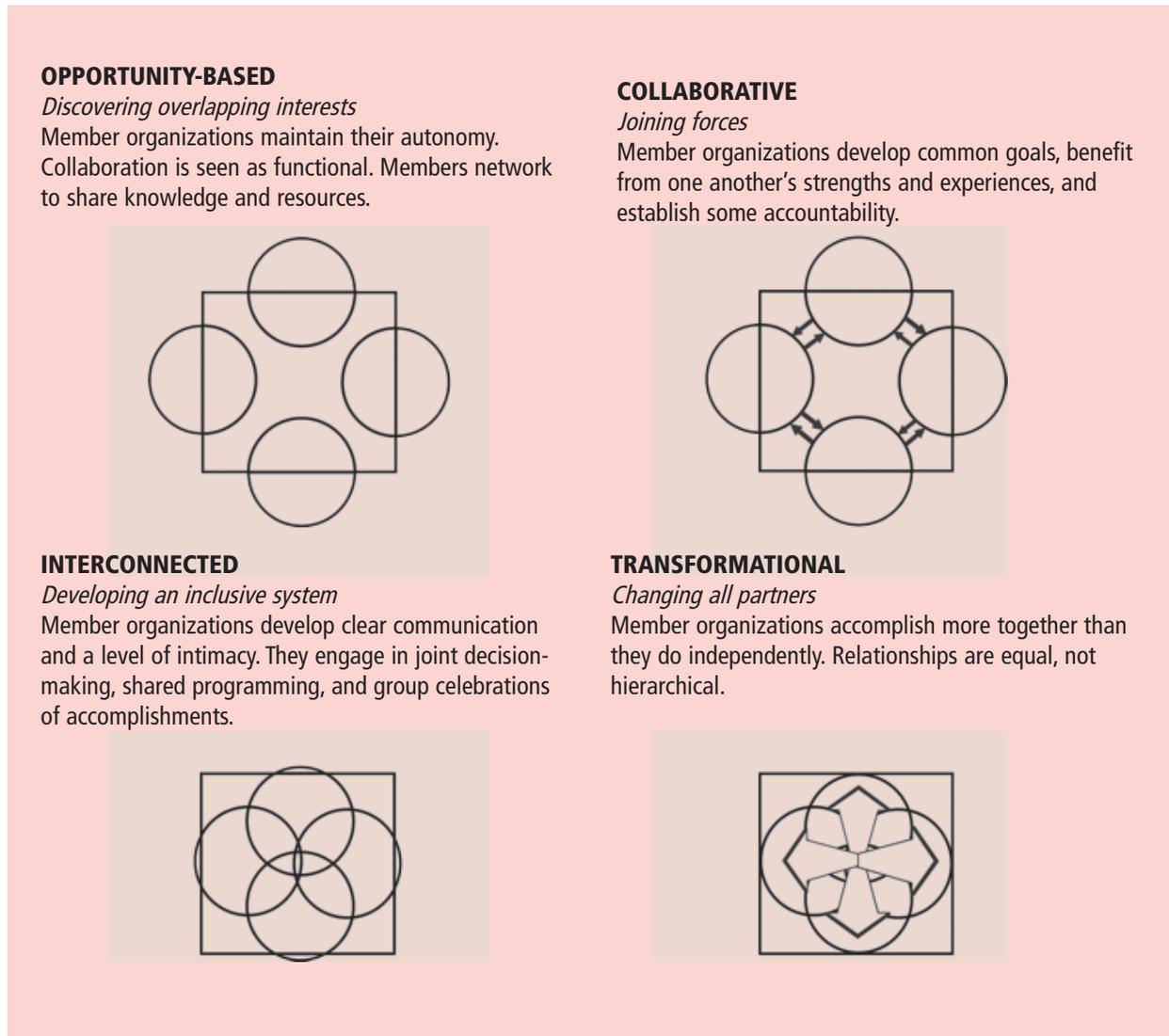
To explore how an ecosystem led by an OST-centered organization develops, acts, and sustains itself over time, we asked the following research questions:

- Why and how does a community come together to form an ecosystem?
- How are ecosystem aspirations transformed into action?
- How does an ecosystem measure the effectiveness of its efforts?
- What are indicators of ecosystem sustainability?

We began by reviewing the four STEM Learning Ecosystems CoP strategies and 10 design principles. To

Figure 2. Partnership Typology

Source: Noam & Tillinger, 2004



explore how community sectors join in an ecosystem to transform STEM education, we used the partnership typology shown in Figure 2 (Noam & Tillinger, 2004) to track the ecosystem from opportunity-based to collaborative to interconnected to transformational partnership, acknowledging that systems, like people, can function at more than one developmental level at the same time.

Our in-depth analysis of an established ecosystem examines how community stakeholders collaborate to support student learning, how the programming helps young people develop STEM skills and knowledge, and how other ecosystems can use this model.

Research Methods

We used a mixed-methods approach to understand how Tulsa's OST-centered community used the STEM Learning Ecosystems CoP network to begin to transform STEM learning.

Data Sources

Multiple data sources were used to build evidence for the case study. All study procedures were approved by an institutional review board.

Document Review

To understand the historical context of the Tulsa STEM ecosystem, we conducted an extensive review

of documents, archival records, and physical artifacts, including the ecosystem design blueprint, the STEM Learning Ecosystems CoP membership application, and the TRSA website. These secondary data helped us understand the timeline and allowed us to map the landscape of the community. The data also allowed us to explore evidence of ecosystem impact on academic achievement, the quality of programming, and the learning experiences of youth.

Focus Group and Interviews

We conducted one focus group with 10 people and 15 individual interviews with key ecosystem stakeholders. In total, 21 individuals participated in the focus group, individual interviews, or both. They represented various sectors of Tulsa's ecosystem, including afterschool, business, local government, philanthropy, K–12 schools, STEM professionals, and community alliances. Several participants were also parents whose children participated in TRSA OST or in-school programming. Some had STEM experience as teachers or as staff of STEM-based organizations.

The focus group was designed to spur conversations among participants from diverse sectors. Individual interviews, by contrast, allowed more time to delve into individuals' perspectives. They also allowed individuals to surface challenges facing the ecosystem or its sectors that they might be hesitant to raise in a group setting. Both the focus group and individual interviews used a semi-structured format. The discussions were guided by predetermined questions based on the CoP strategies and the partnership typology, but respondents were encouraged to talk freely and ask questions.

After each interview, we emailed the participant a link to a follow-up questionnaire, in which we asked for demographic information such as gender and race/ethnicity and enabled respondents to share anonymously their thoughts about the well-being and sustainability of the ecosystem. Of the 11 people who completed this survey, nine identified as White/Caucasian, and seven were female. All 11 were college educated; just over half held a master's degree.

Observations

Direct observations of OST STEM activities were performed using Dimensions of Success (DoS), a validated observation tool designed to assess levels of quality of informal STEM activities (Peabody, Browne, Triggs, Allen, & Noam, 2019; Shah, Wylie, Gitomer, & Noam, 2018). This evidence-based tool captures

12 dimensions of STEM program quality along four organizing domains. Strength of evidence for each dimension is quantified using a 4-point rubric ranging from 1, *evidence absent*, to 4, *compelling evidence*. Rigorous training and certification are required to perform DoS observations. Certified observers performed 37 observations in 12 school- or community-based OST programs. The psychometric properties of DoS and descriptions of its dimensions can be found in Shah et al. (2018) and Allen et al. (2019).

Student Surveys

Students enrolled in OST programs supported by TRSA were invited to complete a validated self-report survey called the Common Instrument Suite for Students (CIS-S). The CIS-S measures five attitudes predictive of future STEM participation—engagement, career interest, career knowledge, activity participation, and identity—and assesses four 21st century skills: critical thinking, perseverance, relationships with adults, and relationships with peers (Allen et al., 2019; Malti, Zuffianò, & Noam, 2017; Noam, Allen, Shah, & Triggs, 2017). The psychometric properties and descriptions of the survey scales can be found in Allen et al. (2019). A total of 7,713 young people in grades K–12 who participated in TRSA-supported programming took the survey. For validity reasons, only surveys from respondents in grades 4 and above were used in this case study.

Ecosystem Leader Survey

We also used data from the TRSA leader's STEM Learning Ecosystems Indicator Tool. Leaders of all CoP communities complete this self-report survey each year. Developed by CoP organizers, the survey measures ecosystem progress in five domains aligned with the CoP strategies and design principles: cross-sector partnerships, architectural and organizational features required for sustainability, alignment of learning in and out of school with evaluation, equipping educators with tools and training, and college and career readiness and development of articulated career pathways.

Data Analysis

Qualitative data from interviews and the focus group were transcribed, categorized, and organized thematically. We also assembled key events and outcomes into a chronology to examine the ecosystem's development over time.

Quantitative data from observations, youth surveys, and the leader survey were analyzed using data

analysis software. We tested for statistical significance to examine any differences in survey ratings between Tulsa youth and a national sample of peers in similar OST programming. We could not analyze differences over time because data were de-identified and represented different cohorts of programs and children.

Findings on the Tulsa STEM Ecosystem

We synthesized six categories from the qualitative and quantitative data: the ecosystem's landscape, origin and evolution, theory of action, impact, partnerships, and sustainability.

Landscape

The document review and the interview and focus group discussions helped us map the distinctive features of the ecosystem's location and community. As in many other U.S. cities, STEM employment opportunities in Tulsa are growing, but employers struggle to hire local people with adequate technical skills and experience. Oklahoma is home to a wide variety of STEM-related industries including oil, natural gas, energy, manufacturing, and aerospace. Many STEM-related businesses are collaborating with TRSA, providing financial and other resources and co-organizing STEM events. A few public schools have been praised by national media for their innovative approaches to STEM education (Kirp, 2017; Thompson, 2017). However, progress has been stymied by recent financial crises and teacher strikes, and performance on math and science assessments has been consistently low (Oklahoma State Department of Education, 2018; Nation's Report Card, 2017). Tulsa's STEM challenges have the potential to resonate in communities throughout the U.S.

Origin and Evolution

We used qualitative data to trace the origin and evolution of Tulsa's STEM learning ecosystem. TRSA is an intermediary organization—a self-described “dynamic mesh network”—that advocates for education policies to give every student “access to the best possible STEM education” (Tulsa Regional STEM Alliance, 2019). TRSA provides training and professional development

for STEM educators, collaborates with other organizations in and out of OST to implement STEM programs and events, and designs and delivers STEM programming to children and adolescents.

TRSA grew out of several area organizations that had similar intentions to support STEM by addressing educational and workforce gaps. It took five years, from 2013 to 2018, to move from incubation to independence. As of 2018, the organization was an active, independent 501(c)(3) nonprofit enterprise with well-defined organizational structures, goals, and programming. The sole STEM intermediary in Tulsa, TRSA has a board of directors, an advisory council, over 140 diverse STEM partners, and seven paid staff, including a dynamic leader.

Theory of Action

Document review, the ecosystem leader survey, and the focus group and interviews provided evidence for how TRSA has been putting the four STEM Learning Ecosystems CoP strategies into action.

TRSA is establishing and sustaining cross-sector partnerships by collaborating with more than 140 local STEM partners and working to establish new partnerships. Of the 40 events that TRSA organized in 2018, half involved partners representing four or more sectors, and two out of three involved partners from three or more sectors.

To create and connect STEM-rich learning environments in diverse settings, TRSA has been working to increase diversity in two areas: learning environments and populations served. Ecosystem partners we interviewed said that TRSA is promoting STEM learning throughout the city and county. It has been scaling its efforts to reach all young people,

especially low-income youth, youth of color, and youth with special needs.

To equip educators to lead active learning in diverse settings, TRSA has worked with Teaching Institute for Excellence in STEM (TIES) and Tulsa area school districts to identify STEM priorities. It has piloted grade-level STEM lessons in schools, led professional development in which teachers developed inquiry- and problem-based pedagogy, and offered STEM in school-

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Table 2. Tulsa Ecosystem Growth, 2017–2018

Activity	Participants in 2017*	Participants in 2018*
Events, programs, and camps for youth	177,858	194,914
Mentorship opportunities with participating STEM professionals	229	301
Professional development events for educators	1,232	1,310

* Values do not represent unique cases; TRSA may serve the same young person more than once per year.

based OST settings such as clubs and competitions. Records showed that 1,432 students, 41 teachers, 59 classrooms, and 27 schools from several districts were engaged in these efforts. In addition, TIES and TRSA spent substantial time helping one school district design a process to integrate STEM into curriculum.

For the fourth strategy, TRSA has fostered STEM interest and workforce development by partnering with area businesses and industry to offer programs that support youth access to STEM learning and careers. Examples include mentorships with local professionals, engineering competitions, visits to local businesses, and “STEM cafés” in which STEM experts visit schools to discuss their areas of expertise.

Impact

Evidence for ecosystem impact—such as improvements in funding, equity, access, and STEM teaching and learning—was provided by TRSA documents, such as budget and finance information and program attendance logs, and by the focus group and interviews. Evidence for impact falls into three categories: activities and participation, student outcomes, and program quality outcomes.

Activities and Participation

TRSA led significant growth in STEM engagement in Tulsa, as shown in Table 2. Based on documented levels of student impact between 2013 and 2018, TRSA expects to serve more than 250,000 children and youth by 2020. “Student impact” includes direct student engagement in programs, events, camps, and mentoring opportunities as well as indirect student engagement through professional development, materials, and other financial support.

Student Outcomes

Tulsa’s ecosystem has made significant investments to make sure that youth have positive STEM experiences.

Results from the CIS-S survey for TRSA-supported afterschool and summer programs from 2016 to 2018 showed that, at the end of programming, Tulsa students reported significantly more growth in all STEM-related attitudes and 21st century skills measured (except STEM activity participation) than did students in the national sample. For example, 79 percent of Tulsa students reported growth in STEM career interests, compared to 70 percent of students nationwide, a statistically significant difference. In 21st century skills, 85 percent of Tulsa youth reported growth in perseverance, while 66 percent of youth nationwide reported growth, another statistically significant difference. The areas in which Tulsa youth reported the most growth between 2016 and 2018 were STEM engagement, critical thinking, perseverance, relationships with peers, and relationships with adults, with more than 80 percent reporting positive changes in these outcomes.

In baseline results, Tulsa youth began their programs with significantly higher ratings than their peers nationwide in all four 21st century skills and in four of the five STEM attitude measures. For example, Tulsa youth rated an average of 2.98 out of 4 on the self-reported measure of STEM identity before programming, while youth in similar OST STEM programs nationwide scored an average of 2.72. Similarly, Tulsa youth rated an average of 2.27 on self-reported quality of relationships with adults, compared to 1.82 for comparison youth. Both differences are statistically significant.

Examined together, the baseline and final results indicate that Tulsa youth both started with more positive beliefs about their STEM attitudes and skills and reported more growth after their TRSA-supported STEM programming than youth in similar programming nationwide. Typically, a lower baseline is associated with a higher likelihood of improvement and vice versa. The baseline trend may be influenced

by an increasingly positive STEM culture in Tulsa or investments in integrating STEM curriculum in schools. The finding that Tulsa students were more likely than others to report that their program experiences affected their beliefs about themselves in relation to STEM could be related to the ecosystem's investments in educator professional development and program quality; this suggestion is consistent with recent findings that investments in STEM program quality improve youth outcomes (Allen et al., 2019). Although these explanations are plausible, more evidence is needed to clarify causality.

Program Quality Outcomes

Tulsa's ecosystem has made significant investments in the quality of STEM programming. Evidence indicates that young people participating in high-quality afterschool STEM programming are more likely to report positive changes in STEM-related attitudes than those in lower-quality programming (Allen et al., 2017).

Since 2015, TRSA has used DoS to evaluate informal STEM activities. Figure 3 displays average ratings of STEM program quality for the 37 DoS observations of TRSA-supported programs. Average ratings of at least 3, *reasonable evidence*, were achieved for organization, materials, space utilization, participation, and relationships. Another way to look at the data is to examine the proportion of observations that showed reasonable to compelling evidence of quality—that is, they scored 3 or 4 on the 4-point scale. At least 80 percent of observations activities met this criterion for quality for organization (86 percent), materials (84 percent), space utilization (89 percent), inquiry (81 percent), and relationships (100 percent).

From 2016 to 2018, levels of quality in Tulsa improved for three dimensions: organization,

participation, and relevance. However, different programs participated each year, so we cannot state that programs improved.

Partnerships

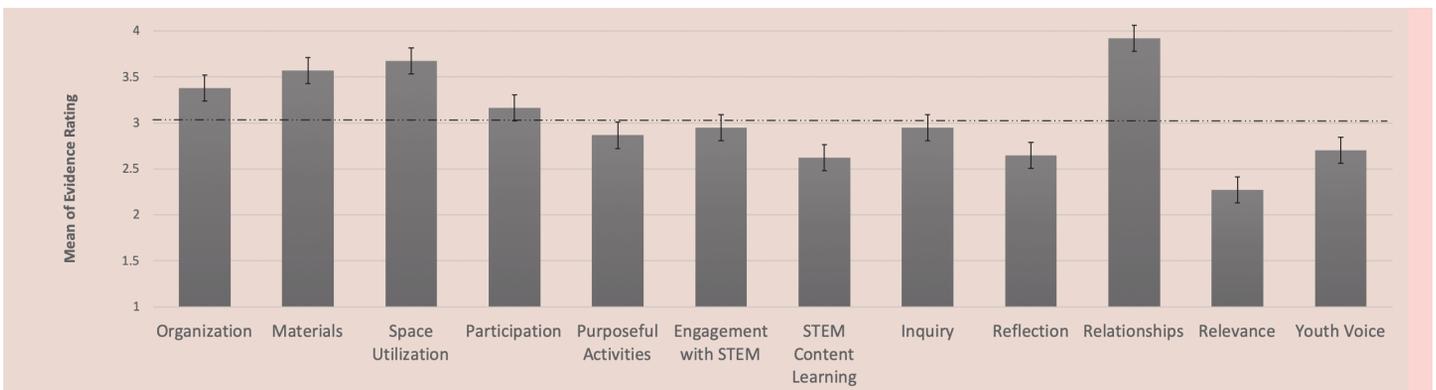
Evidence on partnerships was provided by documents and archival records, by the focus group and interviews, and by the follow-up survey sent to interviewees. The number and quality of activities and events TRSA conducted shows that its work relies on partnerships. Considering the ecosystem as a whole, most interviewees reported that ecosystem members know one another well, tend not to compete, agree on common goals, and share information.

The data suggest that the ecosystem has largely moved beyond Type 1, opportunity-based partnership, in the typology of Figure 2. TRSA has established collaborative partnerships (Type 2) with K–12 and business sectors and is beginning to show early signs of interconnected partnerships (Type 3) within the OST sector. As expected, there were few signs of transformational partnership (Type 4), which is characterized by partners benefiting equally from funding and resources, changing practices to align with others, and adopting a shared framework to understand the community. This type is rarely seen in practice.

Sustainability

Evidence for the sustainability of the ecosystem and its ability to meet the needs of the community was provided by documents and archival records, focus group and interview discussions, student surveys, and DoS observations. Evidence of success includes the significant inroads TRSA has made toward developing strong partnerships in all sectors; generous funding from the Charles and Lynn Schusterman Family Foundation

Figure 3. Average Ratings of STEM Program Quality, 2016–2018



and the foundation's encouragement of other area funders to support TRSA; a landscape rich with STEM businesses and industries; close proximity to many STEM-rich institutions; and deep partnerships with several public school districts to promote quality STEM education, professional development, and funding. DoS findings and student surveys provide evidence that program quality is high and that youth participants are having positive experiences. Respondents said that the ecosystem has an established data system with common assessments and a community of practice focusing on use of data for continuous improvement.

Lessons Learned

This in-depth case study was designed to examine how ecosystems form and develop, using a partnership framework to explore one of the first STEM learning ecosystems in the U.S. Our study can help other communities, funders, and policymakers to guide or support STEM ecosystems.

Paradigm for the Field

Our study highlights the impact that cross-sector collaborations and the concentrated efforts of many partners can have on an ecosystem with strong leadership, established staff members, and well-defined organizational and governance structures. Tulsa's ecosystem provides a powerful example of how individuals, groups, and organizations can create a system of strong partnerships to improve access to quality STEM learning. TRSA is an exemplary OST-led model for the national STEM Learning Ecosystems CoP; evidence shows that it has implemented all four CoP strategies and most of the design principles. By applying national CoP strategies to partners—OST programs, businesses, funders, school districts, and community organizations—TRSA has grown and scaled, suggesting that others may benefit from its implementation approach. Evidence of success in the past five years includes:

- A 7,000 percent increase in funding from a substantially larger number of funders
- A 188 percent increase in the numbers of partners and advisory council members
- Growth of 1,800 percent in the numbers of children and youth engaged in TRSA-sponsored STEM activities

Focus group and interview respondents said that the STEM Learning Ecosystems CoP has benefited the Tulsa ecosystem by bringing more awareness to STEM and by improving the community's ability to obtain funding,

build partnerships, and improve STEM achievement. Other ecosystems have the opportunity to learn from Tulsa's lead organizers at biannual CoP events, where members network, share best practices, and brainstorm solutions to common challenges (Traill et al., 2015; Traphagen & Traill, 2014). Although it is not possible to make a causal statement, converging evidence suggests that TRSA's success is due in part to its consistent and active engagement in the CoP and the way it has translated CoP strategies in practice—especially by using strategies to develop and deepen partnerships.

Partnerships and Culture

Application of the partnership typology in Figure 2 (Noam & Tillinger, 2004) to Tulsa's ecosystem helped us to identify partnerships within and between sectors and to trace their growth and depth. Other ecosystems can apply this framework to understand partnerships in their own communities.

In Tulsa, partnerships were foundational to the ecosystem's growth and development. Early design and planning sessions fostered cohesion among a diverse group of people who would soon take on leadership roles in TRSA. From these early meetings emerged a champion organizer and a dedicated funder who worked closely together to connect partners and sectors. Though funding initially brought like-minded partners together in opportunity-based partnerships (Type 1 in the typology), the "can-do" culture of TRSA's leaders created camaraderie among the partners so that many began sharing common goals and planning STEM-rich programs and events together in collaborative partnerships (Type 2); some even engaged in interconnected partnership (Type 3). Many of these partners are still at the table today.

TRSA avoided the trap that can emerge when opportunity-based partnerships form in response to a funding opportunity. If the organizations postpone the foundational work of developing relationships, the system will experience problems once the funding becomes available. If, by contrast, ecosystem leaders do the necessary groundwork and keep focusing on partner relationships, the system can develop deeper partnerships, as TRSA has done.

Evidence-Based Approach

Early on, TRSA decided to engage the research community, adopt a common framework and language to understand STEM quality and outcomes, and invest in evidence-based assessments to ensure the quality

of STEM activities delivered to young people. Data collection pervades TRSA activities, especially in informal STEM programming but increasingly also in schools. TRSA adopted widely used tools with national comparison samples, the DoS observation tool and the CIS-S student survey, to determine whether activities are providing meaningful learning experiences that promote cognitive, emotional, and social growth.

In addition, TRSA has already done exemplary work to build an integrated data collection system. With technical assistance and support from researchers, these systems are used in a continuous improvement process that informs programs of their strengths and areas for improvement so they can set goals and modify facilitation, curriculum, activities, or materials (Noam et al., 2017; Peabody et al., 2019; Sneider & Noam, 2019).

For example, program observation data and youth data are channeled into a comprehensive online database, visualized, and correlated using a dynamic virtual dashboard that is accessible to participating schools and programs. TRSA works with partners to help them understand their data and put their findings into action. National work with DoS and CIS-S has shown that investments in STEM program quality translate to better outcomes for youth (Noam et al., 2017; Sneider & Noam, 2019). A lesson for all ecosystems is that data collection should be intentional, transparent, and evidence-based; should involve multiple sources; and should be applied to practice quickly and constructively.

Action for Sustainability

This case study shows how Tulsa's ecosystem translated the principles of the STEM Learning Ecosystems CoP into growth and sustainability. The lessons learned in Tulsa—both the successes and the challenges—are applicable to all ecosystems and to STEM education as a field. The successes have been outlined above: strong partnerships, high-quality programming, positive youth experiences, stable funding, and use of data for continuous improvement. Challenges include developing stronger partnerships with schools and businesses and improving quality in the areas of reflection, relevance, content learning, and inquiry. More professional development

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is needed to facilitate activities that help young people to reflect on learning, connect content to their everyday lives, deepen their STEM knowledge and understanding, and practice inquiry skills used by STEM professionals in the real world. These challenges are not unique to Tulsa,

but in fact have been observed nationwide, underscoring the need for collective action by the whole field (Allen et al., 2019; Shah et al., 2018).

The Tulsa example suggests that STEM ecosystems can benefit from the following actions:

- Developing strong partnerships with many organizations in key community sectors, including K–12 schools and businesses
- Improving communications to raise awareness of ecosystem efforts
- Diversifying funding streams and balancing the goals of funders with the goals of other members of the community
- Changing leadership and inviting new voices to join or lead the initiative, especially people who represent the diversity of the community
- Encouraging stakeholders to align their actions to the ecosystem's mission and aspirations
- Involving all members equally in goal setting or decision-making
- Developing and implementing new strategies to increase reach and capacity while minimizing burden on staff
- Expanding STEM learning opportunities to underrepresented and underserved youth
- Expanding use of data for continuous improvement
- Making sure that all sectors, not just schools or OST programs, are collecting and using data

To measure sustainability indicators, ecosystems must use a common database to track data over time and across sectors, asking questions such as these: What percentage of youth are considering STEM careers? What percentage of college students select STEM majors? Do percentages differ by student characteristics, such as socioeconomic status? Ecosystems need a holistic, longitudinal approach to understand whether they are “moving the needle” in terms of math and science performance and of

persistence in the pathway toward STEM college majors and careers.

STEM learning ecosystems are just beginning to progress. There is more than one path toward growth, sustainability, and success. Further research is needed to understand the many approaches ecosystems can take to translate STEM Learning Ecosystems CoP theory into practice. As a starting point, case studies built on ecosystem evaluations can provide valuable insight into pathways ecosystems can take to transform STEM education models. They can also help to generate hypotheses to inform future larger-scale studies.

The established model used in Tulsa, applied to other ecosystems, could enable them to explore all aspects of their communities, tell their own unique stories, and set their future paths. Used as an exemplar, the model could catalyze dynamic partnerships among OST programs, schools, businesses, and other sectors. The ecosystem initiative—in Tulsa and beyond—must end not with improvements to OST STEM opportunities but with a core transformation of STEM education across all learning environments. This vision includes fostering project- and engagement-oriented learning opportunities with support from the home, the community, schools, and OST programs.

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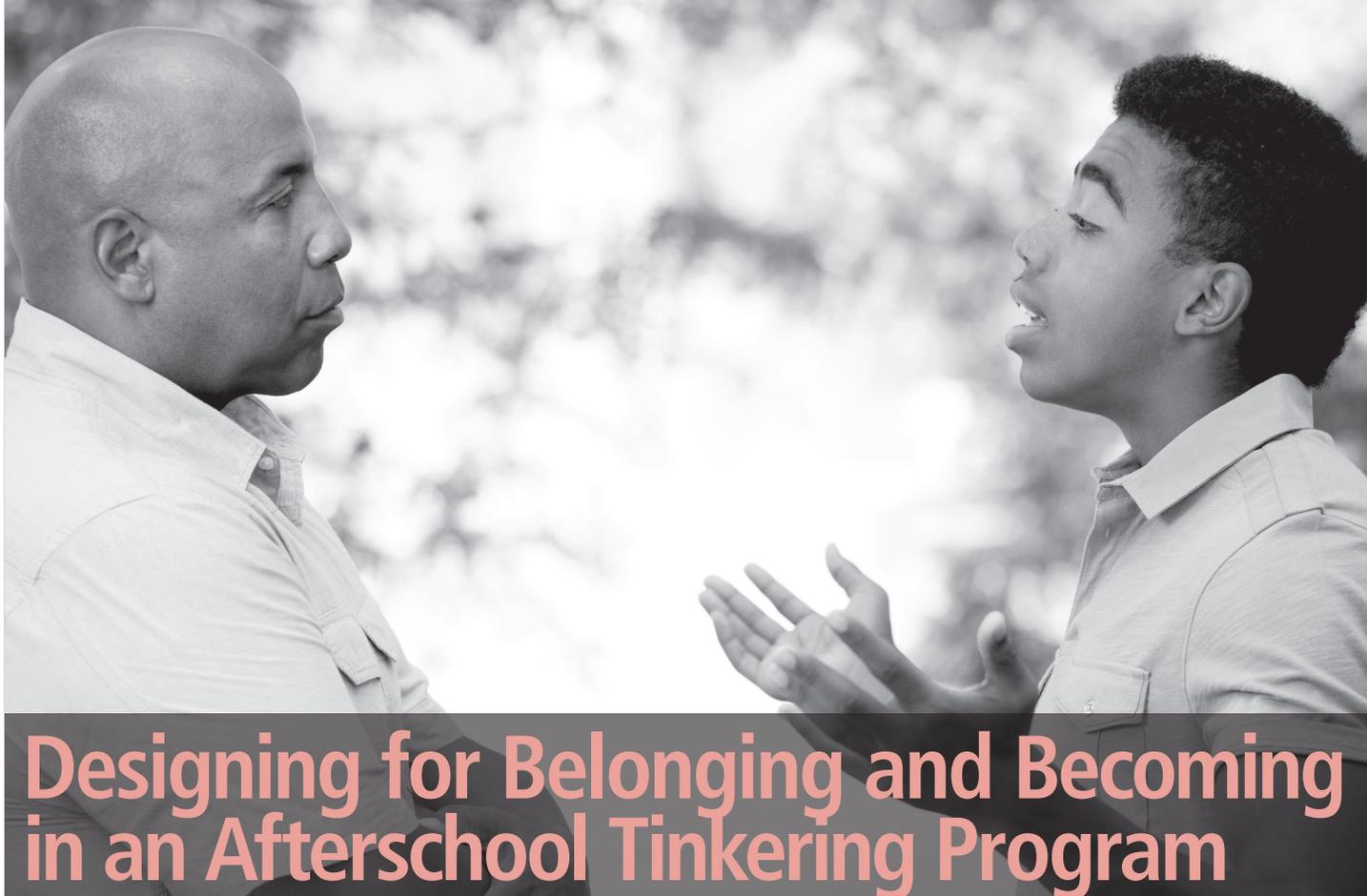
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Designing for Belonging and Becoming in an Afterschool Tinkering Program

Meg Escudé, Edward Rivero, and Jake Montano

After spending the morning gathering materials—butcher paper, markers, wooden stands, power drills, screws—and discussing our expectations for the next hour and a half with students, we enter the afterschool center, situated one block from city hall and another block from one of the city's oldest public housing neighborhoods. Today is a showcase day, where participants will share their foam derby cars with other club members and staff.

Walking in, we continue a conversation we've been having from the beginning of this project: What modifications should we make to support youth decision making? What else can participants learn to do with the scroll saw that would advance their work? Have our design prompts proven inclusive of participants' interests in automobiles, fantastical narratives, the workshop materials, and each other?

Now in the clubhouse, we're informed of a schedule change that adds 20 minutes to setup and reduces time for the showcase itself. Facilitators and students quickly adjust, using the time for finishing touches. Some children yell for specific tools or materials; others pause to revise their presentation plans. Anticipation and anxiety build as facilitators rush to set up the ramp for demonstrating the foam cars. Then clubhouse staff announce another unexpected change: We now need to share the gym with a basketball practice scheduled by a staff member who no longer works here. This additional space constraint leads to a heated conflict between Iris and the rest of her group about whose projects deserve more visible placement. In light of these new predicaments, we abandon the

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showcase altogether. Instead, we improvise responses to the conflicts among participants.

This scenario may sound familiar to afterschool educators; it reflects the precarious and fluctuating circumstances many negotiate, regardless of how carefully they plan. Afterschool centers are known for being flexible spaces where young people enjoy freedom of talk and movement, build long-term relationships with peers and staff, and engage in choice-based programming that supports them in exploring their interests and emerging identities. These conditions are ideal for connected forms of learning that differ from those promoted in traditional school environments (Ito et al., 2013).

According to sociocultural theory, learning in socially and intellectually supportive spaces promotes socially situated identity development, which is essential for a sense of belonging to a community of learners (Gee, 2001; Lave & Wenger, 1991; Rogoff, 1994). Historically, afterschool programs have been purposely set apart from schools in terms of practice, pedagogy, and philosophy (Halpern, 2002; Heath & McLaughlin, 1994). However, the many factors that put extra pressures on children and staff, like those described in our opening vignette, can make it difficult to maintain these distinguishing features. Staff may fall back on school-like practices of behavior regulation that constrain the ability to design for freedom and belonging.

This article examines efforts by an afterschool tinkering program to prioritize belonging and transformative inclusion. By *transformative inclusion*, we mean including each person in a space, accommodating that person's cultural practices and history, and making efforts to transform the norms of the space to better suit those practices and that history. We look not at moments of success but at moments when the program's core values were challenged, as in the vignette, and on what facilitators did to keep the program design responsive. The discussion focuses on alternatives to the kinds of behavior remediation that lead to the exclusion of some children.

We identify three areas of program design where elasticity is necessary to foster a sense of belonging among all participants. Educators must strike a balance between flexibility on the one hand and, on the other, the norms and structures that help young people to feel supported. The image of a rubber band serves as a metaphor for a community of mentors and learners bound by a commitment to transformative inclusion. The rubber band goes through states of relaxed elasticity, moments of pull and tension, and sometimes even twists as young people and educators negotiate room for growth, safety, exploration, and connectedness. We hope this image can help educators explore solutions to the everyday predicaments that arise in afterschool environments.

Program Context

The Tinkering Afterschool Program is a collaboration between the Exploratorium, a science center in San Francisco, and a local afterschool organization. Science center staff, in conversation with afterschool staff, develop and lead weekly tinkering workshops at afterschool centers in two working-class neighborhoods. Tinkering in our context is conceptualized as an inquiry-based creative practice where arts, STEM (science, technology, engineering, and mathematics), and historical and vocational crafts are equally valued. Program participants design and build artifacts such as stencils for custom t-shirts, wooden ball mazes, and stylish race cars.

Participants range in age from six to 12 years old; cohorts are typically grouped in closer age ranges.

Science center staff design and staff the tinkering program. At the time of data collection, Meg Escudé was the program director; she established the partnership between the Exploratorium and the afterschool organization in 2012 and led the tinkering program at one of the two sites until 2019. Jake Montano led the program at the other site. Meg and Jake collaborated with the afterschool education directors at their sites, who sometimes joined as co-facilitators as well. Edward Rivero, a PhD candidate,

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was engaged in participatory design research at Jake's site in 2018–2019. The program also employed three to five teen and young adult facilitators at each site for each weekly workshop.

The program is explicitly organized to prioritize the equity and dignity of participants and their communities. Facilitators carefully consider the cultural, political, and historical context and possibilities of the projects (Vossoughi, Hooper, & Escudé, 2016). Moreover, they pay close attention to how relationships are built among program participants. The pedagogical intention, based on research (Cole, 1996; Rogoff, 2003), is for adult and teen staff to support and prioritize youth agency and creativity while engaging in joint activity. Facilitator engagement and co-investigation positions expertise and knowledge as being distributed among both learners and teachers. Facilitators can urge deeper investigations and learning in the moment than would be possible if children worked autonomously (Vossoughi, Davis, Jackson, Echevarria, & Muñoz, 2019).

Program staff put each tinkering project through a lengthy process of development and iteration before introducing it in the program. They also engage in reflective iteration during and after implementation. The tools and materials used are authentic, recognizable, and economically accessible; planners avoid projects in which only adults can use the tools. Each workshop day begins with a circle discussion that both introduces the topics and tools of the day and builds community. Then participants have about an hour of workshop time, followed by cleanup. The site team, including teen facilitators, meets after each session to discuss successes, tensions, and ideas about how to support youth the following week.

Methods

During the 2018–2019 program year, we gathered data including field notes, artifacts, observations, photographs, video, and interviews. Drawing on notions of the material and ideal qualities of artifacts from cultural historical activity theory (Cole, 1996; Pea & Cole, 2019), we paid close attention to the design decisions children made when they deviated from the activities designed for them.

A participatory design research approach allowed

us to challenge power hierarchies embedded in a paradigm that distinguishes “the researcher” from “the researched.” As suggested by Bang and Vossoughi (2016), we incorporated educators, administrators, community members, and youth throughout the research process. This research approach draws on a genealogy of design-based research, specifically social design experiments (Gutiérrez, 2008; Gutiérrez & Vossoughi, 2010; Gutiérrez & Jurow, 2016) and participatory design research (Bang & Vossoughi, 2016). Because of our emphasis on power relations, these two design-based research approaches informed how we could create learning ecologies that privileged the knowledges, histories, and cultural practices of all stakeholders in the tinkering program.

Features of Design for Belonging

Our examination of the tinkering program revealed three areas of design where flexibility can help to foster belonging:

- Maintaining curricular and pedagogical elasticity
- Practicing transformative inclusion
- Balancing organizational and structural priorities

Maintaining Curricular and Pedagogical Elasticity

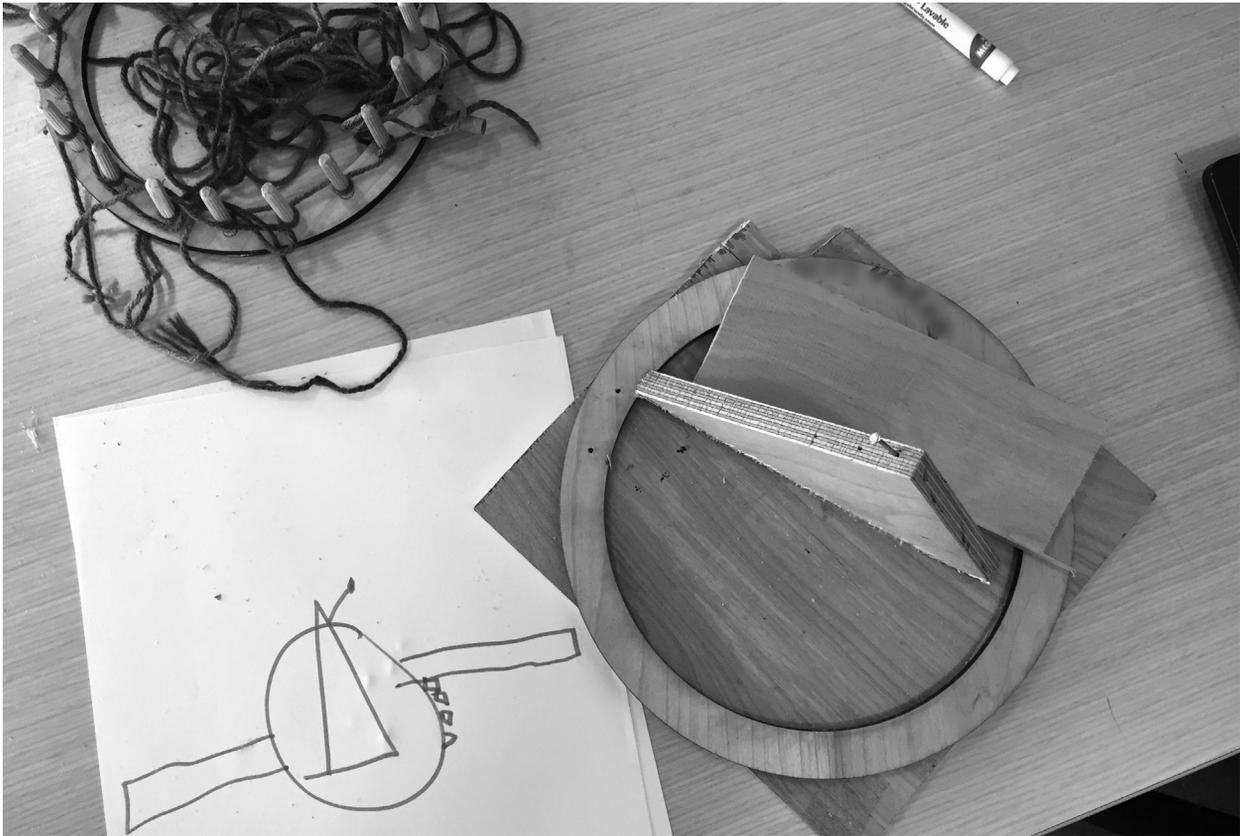
Tinkering programs are marked by an abundance of tools and materials that supply the creations and support the curiosities of participants. We have noticed that making a wide variety of materials available supports expansive creativity. A well-stocked tinkering space is essential to sustain the diverse approaches young people bring to their creations.

However, the realities of packing tinkering materials in and out of a room shared with homework tutors and other club activities means that facilitators have to limit the contents of their crates to the things they anticipate will be most relevant to the projects and concepts being presented. When participants are

inspired to think beyond the boundaries—and the tools and materials—of the activities designed for them, tensions can arise. Ideally, facilitators and participants improvise a balance between curriculum structure and youth agency. This negotiation creates opportunities to learn in a dynamic third space (Gutiérrez, 2008) in

We paid close attention to the design decisions children made when they deviated from the activities designed for them.

Figure 1. Top left: a circle loom. Bottom left: Damon’s drawing. Bottom right: Damon’s bird feeder, in progress.



which learning is guided both by educators’ design and by participants’ interests.

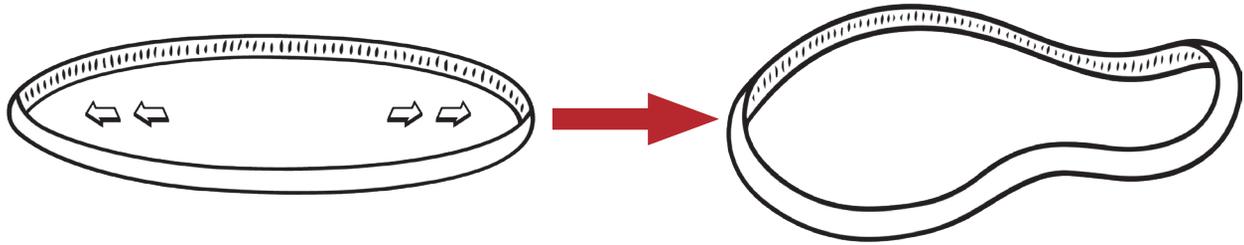
The incident of Damon’s loom illustrates such a shift. (All participant names in this article are pseudonyms.) The session centered on the creation of wooden looms for weaving. Facilitators introduced a variety of traditional loom models so children could choose one to create or to modify toward a new design. Damon, a seven-year-old African-American boy, took the project in a completely new direction. He started with a pre-cut wooden ring, intended as the basis for a circle loom, and began to nail it onto other pieces of wood. Thinking he didn’t understand, facilitators attempted to correct his work. Resisting their prompts, Damon requested wire and shapes of wood that were not available because we hadn’t imagined they would be needed.

When Meg realized Damon had an intentional plan, she encouraged him to draw a picture of what he was creating. Though drawing and talking, he revealed that he was creating a bird feeder. The wooden ring would contain the seeds, and the wire he was requesting

would create a perch for the birds. In a video interview on the day Damon finished his project, Meg asked him to talk about his bird feeder. He said, “I thought that I would make something else, but I was creative, and I said in my brain, ‘What would birds do if they needed food to survive?’” The following week, Meg made a poster with photographs of student work from the past weeks and asked the students to write captions. Damon’s caption for his project (Figure 1) was “I made a bird feeder for the birds and I was creative.”

In using the word *creative*, Damon framed his deviation from the intended activity positively within the program’s values. Although he initially met resistance, he was determined to repurpose the materials and tools toward a new project that had personal meaning. The image of a rubber band helps to illustrate what happened. In Figure 2, the first rubber band shows the strain created when Meg and Damon pulled in opposite directions. The second shows the relaxed state that resulted when they worked through the tension, settling on a new plan that included Damon’s interests.

Figure 2. Damon's determination to reinterpret the planned curriculum initially creates tension with the educator's plans. The tension is relaxed when his project is accepted as part of the group's activities.

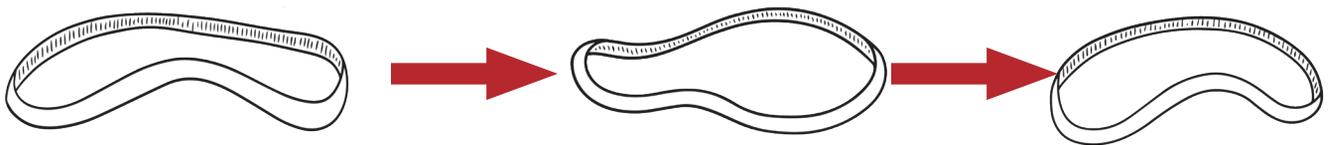


When the rubber band is relaxed, there is room for movement. When facilitators accept participants' agency or resistance, the parameters of the space can shift without creating strain, as illustrated in Figure 3.

In workshop environments, students often draw inspiration from each other's work. Giving Damon

that they were coming up with techniques with which the facilitators were not familiar. Jake began a practice he called "Hey, Everyone!" When a participant found a great way to achieve a task, Jake would announce it to the group and encourage other students to come and learn. Though this was originally an improvised

Figure 3. In a relaxed state, the rubber band's perimeter can shift freely in response to the unrestricted agency of participants.



permission to shift the project gave implied permission to the whole group. The resulting transformation opened new possibilities for all participants. It also interrupted a potential cycle of behavior remediation that can catch learners when they are seen as being off-task. The shift in Damon's position from being *off-task* to being *creative* gave him a path to belonging: He could stay within the perimeter of the rubber band rather than pulling against the edges or being removed entirely.

Damon's story is an example of how one student's determination redirected the purpose of the activity. We also saw examples of whole-group approaches shifting in response to participant interventions. For example, to introduce a new computer program to be used for creating stencils, adult and teen staff anticipated that participants would need extensive instruction. They planned to take turns teaching the needed skills during circle times over several days. However, during these presentations, participants were restless and eager to start working. The facilitators responded by ending the circle earlier than they had planned. As participants began exploring the software, facilitators observed

response, the practice became an established approach for working with complex tools or technologies. The design we use now provides just enough instruction for participants to get started and then allows them to add the expertise they develop during their own exploration. This practice encourages participants both to see each other as resources and to build identities as intelligent learners.

Practicing Transformative Inclusion

Often the tensions in afterschool environments come from personal conflicts between young people. Experienced afterschool staff have a wealth of approaches to preventing and resolving such differences. The approach we highlight here supports transformative inclusion, in which adults seek to remediate (Gutiérrez, Morales, & Martinez, 2009) the structures in which children find themselves rather than asking children to change their participation. In the opening vignette, a moment of interpersonal breakdown between Iris and the other participants derailed the showcase of student work. How facilitators handled Iris's difficulties in working with

others and the shifts that resulted illustrate the power of transformative inclusion.

When Iris, an eight-year-old White child, first joined the tinkering program, the clubhouse staff informed us that she often experienced conflicts with other participants and encouraged us to help shift those dynamics. We soon saw that Iris had difficulty collaborating with peers. For example, when Iris was paired with Sofiya, an eight-year-old African-American and Latina girl, for a collaborative marble-run activity, Iris constantly dismissed Sofiya's design ideas and pursued her own. Eventually, Sofiya exclaimed to the facilitators that she was "being forced to be Iris's assistant" and that she just wasn't "good at marble machines." In an example of how children co-construct perceptions of competence and belonging, Iris's actions created a context in which Sofiya felt incompetent and excluded. Jake talked with both children, who agreed to be split into new pairings. Following this change, we took time in debrief and planning calls to come up with ways to enable Iris to participate with others in more productive ways.

Mid-semester, Iris played a key role in the conflict over the display of projects for the foam derby showcase described at the beginning of this article. As facilitators were setting up the derby ramp, Iris was so upset over not being able to help that she destroyed her own project. Later, she decided to present the project of a child who had left early. Iris said she was fascinated by the design of this project, but other participants questioned the legitimacy of her presentation and of her attempts to place her borrowed project in the center of the display table. When the group was told that it would need to share the gym with another program, tensions heightened. The conflict escalated to yelling. Two clubhouse staff members joined tinkering program facilitators in efforts to resolve the issue, but the result was confusion and conflicting signals. When a participant walked away in anger, Jake made the choice to invest in resolving the conflict. Those efforts took the rest of the program time, so the showcase did not take place.

The following week, Jake and teen staff led a discussion about what had happened, beginning with Jake's reminder that the tinkering program is about

The design we use now provides just enough instruction for participants to get started and then allows them to add the expertise they develop during their own exploration.

"creativity, growth, and skill building, and not about grades or tests." Jake asked participants to share ideas about making future showcases more successful, using "I" statements rather than "you" statements. He modeled this self-reflection by questioning his own time management during the showcase and then voiced a commitment to manage time better.

What followed was a pivotal discussion. Participants reflected on individual behaviors and made commitments to better support each other in the future. During this conversation, Iris reflected on how she could work on collaborating with others more effectively. She also took this opportunity to remind everyone that she preferred to go by "Frankie." She had made this request before, but staff had

not understood it to be serious. In the context of this circle discussion, with its atmosphere of respect and community support, Jake understood that the request carried weight. Jake, who identifies as queer, is actively engaged in advancing efforts to expand conceptions of gender identity and to eliminate otherness. He suspected that Frankie's choice of a gender-neutral name could be significant. He later communicated privately to all staff that they should honor Frankie's chosen name.

From this day on, Frankie's participation in the program shifted. Educators noticed that Frankie was more willing to ask for help in respectful ways. Though she still showed a preference for working alone, her interactions with peers were less likely to lead to conflict. We wonder whether Frankie's public commitment to change may have helped in repairing relations with participants like Sofiya whom Frankie had marginalized. Furthermore, by insisting on her name change, Frankie helped us transform the social environment into one that explicitly affirms the evolving identities of young people.

The sustained tension that prevented a showcase from happening was a challenge, in the short term, to transformative inclusion. The change from a state of tension to one of relaxation, as in Figure 2, was a long-term one, facilitated by both improvised and planned decisions by educators who prioritized resolution of relationship issues over accomplishment of planned

activities. The showcase could have been carried out if Frankie and others involved in the conflict had simply been asked to leave the room. This move would have relieved the tension, but it would have broken the perimeter of inclusion. Jake's choices during the showcase and the commitments that arose during the circle time he devoted to finding solutions show how facilitators can design activities to achieve, in the terms of Bang, Warren, Rosebery, and Medin (2012), relational rather than objective ends. Circle time became a discursive space in which all members of the community of learners could hold each other accountable and develop deeper working relationships.

Our commitment to position young participants as co-designers of the space in the interest of transformative inclusion enabled us to think about how to design for relational equity (DiGiacomo & Gutiérrez, 2016). A long-term view enables facilitators to negotiate tensions with elasticity. Prioritizing inclusion and accepting the tension that goes with that choice can lead to growth and becoming for participants and for the space itself.

Balancing Organizational and Structural Priorities

The Tinkering Afterschool program is a collaboration between the Exploratorium and the host afterschool organization. Balancing the needs and priorities of the two organizations can be challenging. Because science center staff come in only once a week, they rely heavily on the site education directors for important context about center activities and about the children themselves. When the afterschool center staff join debriefing meetings or midweek phone calls, reflections and planning processes are profoundly informed by their knowledge of the children's home lives and of their relationships at school and with peers.

Even with these opportunities to share perspectives, there are still mismatches in the priorities of the two organizations. A common tension occurs when afterschool staff withhold participation in the tinkering program, which the children see as special, as a form of behavior remediation. For program

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facilitators, excluding some children contradicts the value of transformative inclusion. Our next example illustrates how the staff of both organizations collaborated to resolve this contradiction in the case of Andre, a 12-year-old African-American child.

Though Andre was a regular tinkering participant, clubhouse staff prohibited him from participating at one point because of arguments he had with peers and staff. Still, he often entered the room while we were setting up, offering to help and asking if he could participate. Feeling caught between our own

value of inclusion and the norms of the clubhouse, we requested a special meeting with the afterschool staff.

In this meeting, we learned that Andre was experiencing hostility from peers stemming from recent shifts in gender expression. Clubhouse staff had regularly seen him trim swatches of fabric into skirts or adorn blazers with patterns—only to stop suddenly when his older brother walked into the room. They believed that Andre was drawn to the tinkering program in part because Jake is a queer man of color who performs in drag and who supported Andre's experimentation. We thought that the hostility Andre was encountering helped to explain why he was behaving in ways that were getting him in trouble. Recognizing the intention of staff to protect the safety and respect of the clubhouse community, we proposed to support the education director's accountability measures in ways that reintegrated Andre into the program rather than excluding him. The director's measures included, for example, daily reminders of behavior expectations for Andre. Eventually, the director told us, she saw that she could step back from these measures because Andre and Jake had established a strong rapport. Together with other positive changes in Andre's life, this rapport enabled Andre to participate regularly with much less conflict with clubhouse staff.

Our final example recognizes complexity in what might otherwise seem like unrealistic idealism in advocating for transformative inclusion. Sometimes afterschool staff do have to remove children from group activities, particularly when safety or wellness is at risk.

In one such moment, Lewis, an eight-year-old African-American boy who often experienced bullying, was having a particularly emotional day. As the tinkering work got going, he started crying and lightly hitting his head with his fists. The clubhouse director spent some time talking with him to encourage him to re-engage. When that didn't work, he chose to pull Lewis away from the program and into his office to cool down. He offered the boy something to eat and an opportunity to talk about his day. When Lewis was ready, the director brought him back to the tinkering room, where children and staff were cleaning up after the day's work. Lewis was excited to see the animated drawings his peers had made. His enthusiasm resulted in an impromptu showcase in which the children proudly demonstrated their creations. Besides creating an opportunity for those participants to gain recognition for their work, the director's decision to bring Lewis back to the program at the end of the session enabled the child to quickly reintegrate into the space and achieve a state of belonging. If the program space is a rubber band, the perimeter was not broken; rather, it was folded in two, as in Figure 4, so that Lewis could still belong to the program community as he worked through his emotions in the director's office.

This example shows that belonging and transformative inclusion can expand to encompass the norms established by afterschool educators, who must balance a complex ecology that extends beyond a weekly tinkering workshop.

Co-Constructing Third Spaces

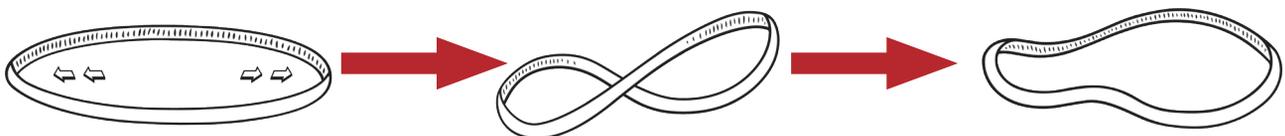
As we co-designed for belonging with afterschool staff and the participants in the tinkering program, questions of equity, culture, and power informed our pedagogical approaches. A central question was how to co-design a space with children who had heterogeneous

interests and histories of making. Drawing on notions of designing for the pluriverse (Escobar, 2018), we provided multiple pathways through which participants could engage. We did so by valuing their agency, whether they were repurposing tools and materials, transforming social norms, or influencing program design. This elasticity of design led to the development of pedagogical practices that educators in maker spaces and other afterschool programs can adapt to their own contexts.

In light of the fact that youth from nondominant communities have been marginalized in STEM contexts (Bang, Warren, Rosebery, & Medin, 2012; Martin, 2009; Nasir, 2011; Vakil, 2018), educators play a central role in redistributing learning opportunities in equitable ways. As making and tinkering programs become more prevalent, the field is challenged to reimagine the roles adults play in workshops where youth-led engagement is valued. In our design, educators in the tinkering program engage in joint activity with participants, taking such diverse roles as artistic mentor, skills instructor, social actor, and architect of an environment that supports inquiry and discovery. The pedagogical interventions described in this article expand concepts of how educators and participants co-construct third spaces for learning and becoming.

Designing for belonging is a co-constructed process that can take place in collaboration not only between young people and educators but also between partner institutions. This ongoing and iterative process requires educators to design from the ground up as they learn through conflicts that arise at the micro level on a given day in a given afterschool program. We've seen that, when this perspective is communicated to higher organizational levels, improved institutional support facilitates the design of out-of-school contexts that are sustainable for future generations.

Figure 4. The band on the left shows the learning space in tension, when Lewis cannot engage with the group. The second physical space made available by the director is represented by the folded rubber band in the middle. When Lewis is reintegrated into the program space, the rubber band unfolds to return to a relaxed, inclusive state.



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Positive Youth Development Through Hip-Hop Music Production

Erica Van Steenis

On the surface, Horizon Youth Service (HYS), located in the greater San Francisco Bay Area, resembled many afterschool programs. On a typical day, participants arrived a little before 4:00 pm, greeted HYS youth workers by first name, and caught up on the day. Then they headed into their program activities, where they pursued their interests, collaborated with others, and developed skills.

What was special about this space, however, was the kind of creative work young people did: professional-level hip-hop music production using high-end equipment in an in-house recording studio. Daily, participants wrote songs, tinkered on the sound board, constructed beats, collaborated on songwriting, led recording sessions, and sequenced songs for album release.

Consider this example from fieldwork I conducted at HYS. Leo, the head youth worker, and

“Bree” (a pseudonym, like all participant names in this article) sat next to each other in front of a large computer screen. Working with a professional music software program, they created beats to put with the lyrics Bree had just written. Leo showed Bree how to use the keyboard, pressing different keys to produce different sounds. After watching Leo intently, Bree strung together her own beats. Leo found her sound unique and her beat timing on point; both of these technological skills take time to develop. When Leo told Bree that she had a knack for beat making, she smiled. Bree was, like other HYS participants, immersing herself in hip-hop production. Working collaboratively with staff and peers, HYS participants learned high-level technological skills, increased their

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capacity for relational connections, and experienced personal growth on many levels.

This paper draws on positive youth development theory to highlight the significance of HYS participants' hip-hop music production, focusing on three HYS organizational features that supported participants' growth. My findings lead to recommendations for out-of-school time (OST) programs that combine creativity with development of life skills.

Hip-Hop and Its Pedagogical Use Across Contexts

Hip-hop, a movement that encompasses art, politics, and culture, emerged in the Bronx, New York, in the 1970s (Love, 2016). Some scholars emphasize that hip-hop emerged as a multicultural and multiracial phenomenon (Chang, 2005; Chang & Watkins, 2007); others argue that it arose most prominently from African-American experiences of oppression and marginalization (Rabaka, 2013; Rose, 1994). Hip-hop has played an important role in community organizing and movements for social justice (Chang, 2005; Chang & Watkins, 2007; Rose, 1994). It resonates with young people across lines of gender, race, ethnicity, and socioeconomic status (Alim, 2011) and especially with African-American and Latinx youth because of its critical examination of oppression (Love, 2013, 2014, 2016; Rose, 1994).

In the early 1990s, urban educators started to draw on hip-hop music and culture to facilitate deep learning (Alim, 2011; Hill & Petchauer, 2013; Irby, Hall, & Hill, 2013; Love, 2013). Hip-hop can structure young people's development in a way that is "centered on democratic education aimed at helping students of color multidimensionally conceptualize oppression in an effort to gain political and social equality" (Love, 2013, p. 27). The use of hip-hop in education validates young people's culturally relevant experiences and makes them agents of their own learning, as recommended by thinkers from Freire (1968/2000) onward (Gay, 2000; Ladson-Billings, 1995; Paris & Alim, 2014).

Two relevant lines of research have revealed the power of hip-hop in education. The first highlights use of hip-hop in

school English and science curricula. English teachers have drawn on hip-hop lyrics to develop their students' critical lens for analyzing the circumstances of their lives (Morrell & Duncan-Andrade, 2002; Stovall, 2006). Teacher-researchers, including Emdin (2011), have made science relevant by connecting it with students' hip-hop cultural identities.

The second line of research comes from a burgeoning field of practice that uses hip-hop music production in afterschool spaces to contribute to young people's positive development. Hip-hop-focused OST programs include, among many others:

- The Living Remix Project in New York City (<http://thelivingremix.bandcamp.com>), which provides a pathway for youth to gain skills in digital media, storytelling, and collaboration by writing and producing hip-hop music
- Building Beats, also in New York (<http://buildingbeats.org>), which teaches youth about DJ and digital media production
- Youth on Record in Denver, Colorado (<http://www.youthonrecord.org>), which partners local public schools with the music community to uplift youth voice

Hip-Hop Music Production as Creative Youth Development

Positive youth development theory adds depth to research findings on the use of hip-hop music in school and OST education. Focusing on the healthy development of young people's academic, social, and personal assets and on the essential role of relationships in that development (Benson et al., 2006; Larson, 2000, 2006; Lerner, Brentano, Dowling, & Anderson, 2002), this strength-based approach emphasizes young people's assets and agency (Benson et al., 2006; Damon, 2004). Programs that embrace positive youth development structure opportunities for youth to engage in supportive relationships (Eccles & Gootman, 2002). Research has shown that young people develop through their relationships with others and their participation in their communities (Halpern, 2005; Mitra 2008; Zeldin, Christens, & Powers, 2012).

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Scholars have recently extended positive youth development theory to examine inequities in social relationships and to promote systemic social change (Ginwright & Cammarota, 2002; Ginwright & James, 2003). Social justice youth development pushes the focus beyond individual motivation and capacity (Damon, 2004) to examine ways to remove structural and institutional barriers young people face (Cammarota, 2011; Ginwright & Cammarota, 2002; Ginwright & James, 2003). This critical perspective relates to the role hip-hop music production plays in young people's lives and exemplifies the goals of creative youth development (CYD).

CYD, drawing on positive youth development theory, focuses specifically on the developmental outcomes that occur when young people participate in the arts. As young people establish artistic skills in CYD programs, they strengthen their sense of identity and their community connections. The Boston Youth Arts Evaluation Project (2012) found that young people's participation in afterschool arts programs developed their competencies on multiple levels. Intermediate outcomes included participants' ability "to engage and be productive, to navigate, and make connections with others" (p. 29). In the long term, these intermediate outcomes led to the "resiliency, self-efficacy and personal fulfillment, and community engagement that together constitute life success" (p. 29).

Such outcomes develop because CYD afterschool programs exemplify six key characteristics. As outlined by Mass Cultural Council (n.d.), these characteristics are that CYD programs:

1. Provide safe and healthy spaces
2. Emphasize positive relationships
3. Set high expectations
4. Honor young people's voices and expertise
5. Draw on participants' assets
6. Build from young people's broader contexts (Mass Cultural Council, n.d.)

In community-based arts programs, these features give participants robust, sustained opportunities for creativity and increase their opportunities to create more equitable and just futures (Heath & Roach, 1999;

Montgomery, 2017). CYD can expand participants' "self-awareness, social awareness, leadership capacity, and skill for cross-cultural understanding," as Stevenson (2014, p. 22) put it. At HYS, participants' engagement in creative work led, among other positive results, to greater agency in changing their social circumstances.

Research Methods

Program Context

HYS was founded in 1993 by two community members interested in making a difference in the lives of underserved youth in the San Francisco Bay Area. HYS received funding from a variety of donors, government contracts, and private foundations. At the time of data collection in 2013–2014, the organization offered case work support, culinary arts training, life skills workshops, and financial advising to over 150 participating youth.

A subset of participants came to HYS's digital media arts lab to pursue their interest in hip-hop music production alongside more experienced peers and youth workers. The accessibility of the studio enabled these young people to build their skills in digital technology. As they became more expert, HYS hired them to run an in-house record label called Dream Records. They were compensated for facilitating recording sessions and producing their own music, which was distributed both online and on CDs pressed in-house. Dream Records recorded and distributed an album during the year I collected data.

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Participants

At the time of data collection, HYS participants spanned the ages of 14 to 24. Most identified as African American, Latinx, multiracial, or Asian. My study focused on three females and nine males, all between 18 and 22 years old. All were consistent participants, and some were Dream Records employees. They reflected the demographics of HYS: eight were African American, three were Latinx, and one was White. All were advanced participants; the many novice HYS participants were not the focus of this study. Other research informants were six youth workers, including

the cofounders, head caseworkers, and digital media arts lab leaders.

Data Collection

For this qualitative case study, I conducted 28 observations in the recording studio, 12 interviews with youth participants, and interviews with three of the six youth workers. In observations, I focused on social interactions in the recording studio. In interviews, I asked young people about their experiences with producing hip-hop music, their relationships with HYS adults, and their perspectives on the program. I asked the youth workers about their relationships with youth and with HYS, including how long they had worked there and why they stayed.

Anchoring my analysis in the features of positive youth development and creativity at HYS, I used an inductive analytical approach to the data. I focused on HYS's support networks, the quality of youth participation, adult–youth collaboration, peer interactions, and creative processes. I also looked for the ways in which HYS fostered participants' civic and sociopolitical development.

Researcher Positionality

Vu Le (2019), author of the blog *Nonprofit AF*, asks that content creators, including academic researchers, take a deliberate and equity-informed approach in order to avoid reproducing white hetero norms. This concern looms large for me as a white cis-gendered female scholar who conducted research as an outsider to hip-hop culture. Le's REACH equity screen (2019) has helped me to consider how to address representation, experience, accessibility, compensation, and harm reduction in writing this piece. One commitment I made is an intentional choice not to include an examination of HYS participants' songs and lyrics. These young people were not collaborators on this paper, and the songs are their own. Rather than assessing their work, this article lifts up how the organizational structures of HYS enabled them to create their music.

HYS Features That Fueled Positive Development Through Creativity

Programming at HYS was structured to support positive youth development through the creative process of producing hip-hop music. HYS staff worked to provide participants with:

- A welcoming and accessible space
- Agency in the creative process
- Connections to their social and political contexts

A Welcoming and Accessible Space

HYS focused on community and inclusion, giving participants the consistency and support they needed to maximize their artistic process. Its open-door policy welcomed all interested youth, who included first-timers, emerging music-makers, and experienced artists. Young people were drawn to the center because of its focus on hip-hop and the free availability of high-quality studio equipment. Several research participants who had experienced barriers to producing hip-hop music spoke of the accessibility of HYS's equipment. One, noting that he had nowhere else to make music, said that he could not believe that HYS's free studio was a “real studio and not someone's garage or something like that.” Some respondents, motivated by the quality of the equipment, traveled up to an hour by bus each way to get to HYS.

HYS youth workers made themselves available when participants needed them, working most days of the week and sometimes after program hours. Program directors Diane and Jon lived close to the center, so they could be on site within minutes. Diane said in her interview that her job never stopped. Youth respondents said that the commitment and presence of HYS adults made them feel at home. Chris said in an interview that, at HYS, “Anyone's welcome. Everyone is kind of like family. That's what they told me here when I first came: We're a family.” Stephanie, who had been at HYS for seven years, explained that Diane was like a mother to her—more so than her own mother, with whom she did not have a relationship growing up. Marquis said that HYS felt more like home than his own house did. Dominic highlighted the contrast between HYS and institutional and public spaces, including school, where he regularly experienced police discrimination and issues with authority figures. He explained:

There are a lot of places I feel like I am not welcomed, probably because the way I look, or the way I dress, or the way I act. But, over here, I always feel welcomed, and everybody over here always has open arms for me.

These examples highlight participants' perception that HYS was welcoming, inclusive, and accessible.

Participants' relationships with Leo, the head youth worker, exemplified the tone set by HYS. Leo, who was white, worked at HYS in the recording studio and with Dream Records employees because he had an extensive background in writing, producing, and engineering music from a variety of genres. Leo did

not specialize in hip-hop music, and he came from a different background from most HYS participants. Still, he was uniquely situated as a creative ally because of his musical expertise, which he used to scaffold participants' learning experiences. In an interview, Adrian called Leo his mentor and said he appreciated how Leo worked alongside him in the studio. He described, for example, how Leo would dive into the process of making a beat or laying down a track. Other participants also attributed much of their knowledge of music production to their interactions with Leo.

Access to quality equipment at no cost was a big draw. However, the welcoming atmosphere and the commitment and caliber of the youth workers also attracted participants and motivated them to produce music. HYS created a sense of safety and belonging that was often not present in other contexts of participants' lives. The youth workers fostered these characteristics because they knew what it took to support young people and facilitate trust.

Agency in the Creative Process

Collaboration with peers and with adults shaped the creative process of HYS participants across stages of music-making from songwriting, recording tracks, and refining songs to post-production distribution. Participants built their expertise together, not just individually. Michael, who had attended HYS for two years, said in an interview that he and his friends worked hard to collaborate on shared music goals. Similarly, Devin explained that, although the studio space initially attracted him to HYS, he stayed involved because everyone worked together on music projects.

Not only peer interactions in the creative process but also collaborations with youth workers were integral to the structure of HYS programming. For example, one evening Sierra, a Latina newcomer to HYS, and Marcus, an employee of Dream Records—that is, a veteran participant—were working together in the studio on a song Sierra had written. Sierra stood behind the microphone nervously with her hands in her pockets. Marcus stood confidently behind the soundboard as Sierra sang. Saying that she could

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not find her voice in the song, Sierra expressed frustration with how the song sounded. As they continued putting the song to a beat, Marcus noticed that she did not sound as “passionate” in one part of the song as another. He encouraged her, saying, “You gotta feel it!” and urging her to put her authentic self into her vocal production. Sierra responded that it was not her voice she was hearing; instead, she “kept doing high pitch.” He taught her ways to access a lower pitch in her voice, but also

empathized with her feeling that, as he put it, “If it ain't perfect, it ain't right.” Overhearing this collaboration, Leo joined Marcus and Sierra and gave them a different perspective:

You have to slowly kill your inner critic.... Usually when you're making a beat, you don't know where it is going to go, so you just have to make another one and another one.... In the beginning, not judging yourself is actually the key to making a good beat.

This kind of collaboration was a central feature of the creative process at HYS.

Another example of how youth workers encouraged agency was Leo's collaboration with Selena on a song she wrote about her experience of having lost a baby. She said she wrote the song to uplift the experiences of young mothers. Leo emphasized that her song resonated because she drew on her life and used powerful lyrics to communicate her experience. As Leo worked alongside Selena on the song, he positioned her as the expert in her own creative experience.

Connections to Social and Political Contexts

HYS youth workers paid keen attention to equity issues and invited critical conversations about gender, race, socioeconomics, and sexuality. HYS participants experienced many forms of discrimination and oppression across the contexts of their lives. Writing and performing hip-hop music allowed them to process the issues they and their communities faced daily.

These social and political contexts emerged not only in the music, but also in interactions at HYS. Early

in my time there, I witnessed a conversation at a pizza dinner among 10 male employees of Dream Records and two youth workers, Leo and Lisa. The conversation was about how to structure the studio to encourage fuller female participation. CJ said that female presence had increased in his time at HYS but acknowledged that females hesitated to produce their music. Lisa asked if the young men had ideas about how to invite more equity. David thought that female participants could have their own time in the studio without male youth present. Angel agreed, and CJ replied that this was the best idea he had heard. In closing the conversation, Leo asked everyone to be mindful of inclusiveness so that young women could feel comfortable using the equipment. Together, the youth workers and the participants observed that HYS practices fell short of its norms related to gender. In the conversation, the young men took on shared accountability for effecting change, starting with a recognition of their own complicity in the lack of inclusion of females—a lack that has been recognized as a shortcoming of the hip-hop movement.

Other dialogues about participants' social and political contexts occurred through personal narratives they shared while making music. Kel, a 20-year-old African-American participant who had worked for Dream Records for several years, had a passion for running the sound board and writing rap songs. He displayed his commitment to hip-hop culture in his discourse, attitude, and dress. In the recording studio, Kel undertook a critical examination of his circumstances, which included being targeted because of his race. Though he experienced success and acceptance at HYS, Kel had struggled to graduate from high school because of conflicts with authority figures. One day as he worked in the studio, Kel shared with me an incident in which he had argued with a teacher and then been forcefully removed from school by security officers. The teacher and school administrators asked him to apologize, but he did not agree that he had reason to do so. From his viewpoint, the argument rose from his desire “to be heard” because he “felt

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ganged up on.” Kel’s situation was a common manifestation of negative views of Black masculinity. He told this story in the recording studio because this was a space where he felt comfortable. He channeled much of his life experiences into songs he wrote and produced at HYS. In collaboration with peers who had experienced similar situations, Kel wrote hip-hop songs that reflected a deep sociopolitical analysis and commitment to self-determination.

HYS positioned participants to engage as hip-hop artists in work for equity in response to local social and political issues. One song, written by one Latino and two African-American participants, detailed their experience as youth of color in their city. The song, “Unstoppable,” commented on gentrification, the education system, food insecurity, trauma, addiction, violence, and the invisibility of their everyday experience. The chorus goes:

Too many people living in this city.
It’s over capacity, over capacity.
Living in poverty,
Possibly probably gain nothing from it
But invisibility.
And I just wanna make a change.
But I keep screaming.
They seem not to know my name,
So I shout louder.

“Unstoppable” and similar songs in which HYS musicians described the adversity and marginalization they experienced exemplify the connection at HYS between songwriting and political activism. Another example is their performance at a Schools Not Suspensions rally calling for a policy to end suspensions as a punishment for alleged behavioral issues in city schools. The rally addressed the fact that youth of color experienced suspension at higher rates than white youth. The performance of HYS participants at the rally showed the connections among their music, their personal investments, and their community engagement.

Program Recommendations

This study focused on what happens when a youth development program provides an opportunity for participants to dive into an artistic medium they value. Hip-hop has immense capacity to encourage young people's creativity because of its connections to their interests, local contexts, and culture. At HYS, producing hip-hop music helped participants learn technology skills that could transfer to other contexts, even as they developed positive relationships with mentors and peers. HYS's relational and creativity-centered approach gave participants rich opportunities for connection and development. Though few OST programs can afford the professional-quality equipment than often initially attracted participants to HYS, any program can follow the recommendations outlined below to tap the potential of hip-hop as a creative medium for positive youth development.

Responsibly Implement Culturally Relevant Pedagogy

Community programs that use hip-hop as a creative outlet run the risk of cultural appropriation. To avoid co-opting a grassroots movement like hip-hop, programs must pay keen attention to whether and how the medium fits the community. One question is how far organizations can go to formalize and institutionalize a creative practice that has its roots in experiences of oppression and marginalization. One possibility is to use hip-hop production in a culturally sustaining way, as HYS did, while also attending to whether the medium fits with the youth community and broader context. HYS participants wrote lyrics and laid down beats to express themselves about issues that affected their lives and communities, developing their skills and expertise in the process.

Following Ladson-Billings's (1995) theory of culturally relevant pedagogy, Paris and Alim (2014) pushed practitioners to consider not only whether pedagogies are relevant, but also whether they support young people's multicultural and multilingual backgrounds. The goal is to sustain young people's "linguistic, literate, and cultural pluralism as part of the democratic project of schooling and as a needed response to demographic and social change" (Paris

& Alim, 2014, p. 88). In implementing hip-hop-based creative programming, practitioners can ask whether the practice is connected to the repertoire of practices of local young people (Gutiérrez & Rogoff, 2003). Culturally relevant practices should produce opportunities for youth to access linguistic skills and exercise creativity. However, programs should take care to avoid dehumanizing ideologies, such as sexism and misogyny, in their use of hip-hop music.

Emphasize Relationships

Relationships with dedicated and committed youth workers and with talented peers at HYS were at least as essential to the development of participants' creative expertise as the center's professional-quality equipment. Research has shown that strong relationships provide young people with safe and empowering settings in which they can build their competencies (Halpern, 2005).

The interaction between Marcus and Sierra during their recording session and the mentorship Leo provided are examples of the ways in which relationships facilitated participants' creative processes. Collaborating with youth workers and peers in the production of hip-hop music enabled participants to process their personal experiences in a safe and inclusive environment. As CYD theorists have noted, authentic relationships provide safe and empowering settings in which young people can exercise their creativity (Stevenson, 2011). HYS youth workers engaged in joint creation alongside youth but also valued participants' expertise and kept the young people's skills and knowledge at the center. Whether or not it has access to high-quality equipment, any creativity-based program can focus on the quality of staff–youth relationships.

Foster Agency and Social and Political Development

At HYS, participants developed and expressed agency through creative expression, media arts innovations, and learning processes facilitated by adults and peers. The participants I observed and interviewed overwhelmingly demonstrated an investment in music production that was self-initiated and self-sustained. Some processes were more collaborative; others, such

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as designing album covers or constructing beats, were sometimes accomplished independently. In all cases, adults were available to facilitate learning as needed.

As they produced hip-hop music and digital media, HYS participants strengthened their individual identities and self-awareness. In the process, they also developed their social and political awareness, accessing their full power to navigate the varied and complex circumstances of their lives. HYS created a space in which participants could discover their agency and engage in personal and social transformation. Montgomery (2018) argues that:

In the most effective CYD programs, young people assume leadership roles and influence programming, administration, and evaluation, and in doing so deepen their sense of responsibility, initiative, ownership, and independence. When young people are able to determine what they want to do in a creative endeavor or community initiative, have the support of their adult mentors to pursue it, and exercise decision-making, they become agents of their own change and lead change in their communities. (Montgomery, 2018, p. 278)

HYS youth not only gained skills in the artistic practice of hip-hop music production, but also had opportunities to exercise leadership and to develop their agency to act on issues in their lives and communities.

HYS is an exemplary OST program focusing on hip-hop music production. The more portraits the field has of such programs, the more we can reflect on the types of learning and growth participants can experience and on the ways in which these programs promote equity and inclusion.

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Transcend the Summer Slump

How Summer Programs Can Attract and Retain Low-Income High School Students

Denise Jones and Dennis Jones

Summer learning loss, the phenomenon in which young people lose academic skills over the summer, disproportionately affects low-income students (Afterschool Alliance, 2010; Miller, 2007; National Summer Learning Association, 2009; Wallace Foundation, 2010). High-quality summer learning programs are an important mechanism to help low-income students overcome persistent opportunity gaps so they can improve their academic outcomes, high school completion rates, and access to employment.

However, low-income youth participate in summer learning programs at lower rates than more affluent students (Deschenes et al., 2010). Research

has elucidated why low-income students do *not* engage in summer learning programs, but few scholars have examined why young people *do* engage; even fewer have studied high school students.

We therefore undertook research on why low-income high school students invest in summer learning. We engaged participants in a community-based summer learning program to examine the factors that first attracted and then sustained their participation. We found that the elements that attracted students to the program were not the same as those that sustained participation. The results of our study suggest ways that program providers and policy makers can better serve the young people who need summer learning programs most.

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Summer Learning and Low-Income High School Youth

Alexander, Entwisle, and Olson (2007) suggest that, by the end of fifth grade, disadvantaged youth may be nearly three grade levels behind more affluent students. In a study of over half a million students in grades 2–9 in one southern U.S. state, Atteberry and McEachin (2016) found that, during the summer, students lost 25 to 30 percent of material learned in the previous year, with more pronounced learning loss occurring among students of low socioeconomic status.

By the beginning of high school, then, low-income students typically have accumulated a significant learning deficit. The difference goes beyond the well-established achievement gap between lower- and higher-income groups to include lower high school persistence rates, limited job access and workforce preparedness, and limited pursuit of postsecondary education, among others (Alexander et al., 2007). All of these effects further exacerbate inequities and sustain the cycle of poverty.

Much of the existing literature suggests that high-quality summer learning programs are an important strategy to mitigate summer learning loss and to attenuate pervasive opportunity and achievement gaps between low-income and higher-income students (McLaughlin & Smink, 2009; National Summer Learning Association, 2014, 2016; Terzian, Moore, & Hamilton, 2009; Wallace Foundation, 2010). Although some evidence suggests that summer programs have the greatest impact in the early grade levels (Alexander et al., 2007; Cooper, Charlton, Valentine, & Muhlenbruck, 2000; Miller, 2007), older youth may benefit from tailored programs that target character and interpersonal skill development and exposure to role models, in addition to academic achievement (Deschenes et al., 2010; McLaughlin & Smink, 2009; Terzian et al., 2009). Summer learning programs have the potential to increase high school students' academic achievement, advance their psychosocial development, improve their school persistence rates, enhance their motivation for and engagement in learning, and expose them to diverse enrichment opportunities (Cooper et al., 2000;

Fredericks & Eccles, 2006; Hall, Israel, & Shortt, 2004; Hansen, Larsen, & Dworkin, 2003; Pearce & Larson, 2006; Raley, Grossman, & Walker, 2005).

Despite these benefits, participation in summer learning programs declines with age, and participation rates are lower for low-income students than for higher-income youth (Deschenes et al., 2010). High school students have different needs from those of younger children, including socializing with peers, helping with family responsibilities, and working to help support the household (Deschenes et al., 2010; Lauver, Little, & Weiss, 2004). Summer learning programs targeting high school students must take these factors into account rather than applying a one-size-fits-all approach. After all, summer programs can be effective in attenuating opportunity gaps only if low-income students choose to participate. Older youth are more likely to participate in programs that are tailored specifically to them and in which they are meaningfully involved (Walker, Marczak, Blyth, & Borden, 2005).

After all, summer programs can be effective in attenuating opportunity gaps only if low-income students choose to participate. Older youth are more likely to participate in programs that are tailored specifically to them and in which they are meaningfully involved.

Research Questions

Our research sought to understand why low-income high school students invest in summer learning opportunities. We wanted to know how to build a high-quality, high-demand model that not only attracts participation but also sustains engagement over time. To that end, we worked with high school students from Youth Enrichment Services (YES), a community-based summer learning program in Pittsburgh, Pennsylvania, to examine two questions:

1. What are the factors that attract and sustain low-income high school students' participation in the YES summer learning program?
2. How do the factors that attract compare to the factors that sustain low-income high school students' participation?

Program Context

YES is a nonprofit organization in Pittsburgh for inner-city youth aged 14–21. Its mission is to give socially and economically disadvantaged youth the opportunity to achieve success through mentorship, enrichment,

and employment programming. Its afterschool and summer programs connect young people to meaningful early work experiences—from vocational trades and customer service opportunities to summer camp counseling and research assistantships. These experiences help youth build skills and gain work experience linked to career paths, future employment opportunities, and postsecondary education.

YES's eight-week summer program focuses on leadership development, employability preparation, and academic enrichment. The goal is not only to prepare youth for future employment, but to also stimulate their academic acumen and to deepen their commitment to their peers and communities. The program has two pathways: Summer Scholars, for young people with minimal work experience, and Advanced Summer Scholars, for older participants with previous work experience. Summer Scholars provides participants with work etiquette skills, experiential learning opportunities, peer development, and career exposure. Building on this foundation, Advanced Summer Scholars centers on deepening participants' technical skills, building their leadership capacity through external employment, and stimulating their intellectual curiosity through research. College-bound advanced scholars engage in college preparation coursework.

YES provided a suitable context for our research into the factors that attract and sustain participation because it has a 25-year history of providing high-quality summer programming for socially and economically disadvantaged high school students. At the time of our study, more than 40 percent of YES participants had been in the program for more than two years.

Methodology

To create a holistic picture of high school students' engagement with YES summer programming, the program director collected and analyzed quantitative and qualitative data using survey and interview protocols designed for this study.

The results of a quantitative survey administered by the program director were used to understand factors that attract participants to the summer program. The 47 young people who completed this survey in summer 2018 are representative of the population of YES summer program participants.

Next, we conducted semi-structured interviews with returning participants at the end of summer 2018

to further gauge attraction and retention factors and to discover how students made sense of their experiences. The 11 interview respondents were a convenience sample of young people who had participated in YES for at least two summers and who indicated willingness when invited by the program director.

Why Youth Participate in YES

We analyzed the quantitative and qualitative data to discover what factors attracted students to YES summer learning in the first place, what sustained their participation for more than one year, and how attraction factors compared to retention factors.

Attraction Factors

The responses to survey and interview questions about why high school participants first came to the YES summer learning program generally fell into five categories:

1. Economic opportunity
2. Employability preparation
3. Relationship building
4. Academic learning
5. Leadership training

Economic Opportunity

Nearly 80 percent of survey respondents and two of the 11 interviewees indicated that economic opportunity was a feature that attracted them to the program. One interviewee said, "The money was the first factor that allured me to join the program. As soon as I was 14, I enrolled in YES. I wanted to earn money so that I didn't have to rely on my mom's income." This respondent saw earning money as a way to gain independence.

Employability Preparation

About half of survey respondents pointed to employability preparation as an attraction factor, as did five of the 11 interview respondents. One female respondent made her reason for participating clear: "I would definitely say work experience—that's basically what attracted me."

Relationship Building

Relationship building was cited as an attraction factor by 80 percent of survey respondents and by five of the 11 interviewees. All interviewees said that building relationships outside of their typical friend groups was a central element of their personal development. They also pointed to the benefits of having peer role models

whose trajectories aligned with their own goals.

Academic Learning

Three of the 11 interviewees and 60 percent of survey respondents cited the importance of academic learning. One participant explained in his interview:

I don't want to just be working for the money. I want to work to actually learn something along the way. I was thinking to myself, "I would rather learn and get paid for it and learn something through that work and educational experience than [to] just work and learn nothing at all." So when YES spoke about the opportunity to learn and earn money, that really pulled me in.

This interviewee explicitly connected academic learning with economic opportunity: "[They] go hand and hand with each other because ... you need education to ... gain economic mobility."

A female participant accentuated the opportunity to explore as an attractive program factor: "You get to have new experiences that you wouldn't get to have on a regular day." Another female respondent agreed: "I was attracted to YES because it was kind of a way to get away from stuff and to engage yourself in exploring and learning new things.... This was really important to me."

Leadership Training

Three of the 11 participants interviewed described the opportunity to develop leadership skills as a factor that piqued their interest in participating in YES. One interviewee reflected on his passion for serving as a mentor to younger program participants:

I really got involved with YES because it was good seeing ... me [as] a role model for most kids. Me being there, just being around for the kids. I showed a lot of kids that I was willing to work with them and to help them get where they need to be.

This response highlights this participant's personal responsibility to his YES community members. Peer mentoring is central to the YES philosophy.

Factors Sustaining Student Participation

We asked the 11 interviewees, all of whom had participated in YES summer programming for at

One female respondent made her reason for participating clear: "I would definitely say work experience—that's basically what attracted me."

least two years, what kept them coming back to the program. The survey also asked about retention factors. Respondents cited the following factors:

1. Academic learning
2. Relationship building
3. Leadership training
4. Employability preparation

Academic Learning

Eight of the 11 interviewees and 60 percent of survey respondents cited academic learning and exploration as factors that sustained their participation in YES. For example, one respondent said:

I come back to YES because they always provide me with the opportunity to try new things. Every year, there's something different about it that pulls my attention ... and through these learning experiences, they force you to see a different view of the world.

Another interviewee clearly connected learning with retention:

Every time I don't feel like ... coming back another year, I always remind myself, "You can really learn something new if you come back." ... And I give myself a pep talk: "You can't give up on gaining new knowledge."

A respondent described the programmatic elements that supported her exploration:

We engage in diverse work sites, experience hands-on learning opportunities, engage in new situations with people daily ... and get to explore classes that help us conduct research for our projects ... like African American history, performing arts, and law enforcement.

The idea of self-accountability was threaded throughout the interviews. Students said they encouraged themselves to remain invested so they could continue to reap the benefits of engagement. For example, an interviewee noted, "I come back because I feel like I need to learn something new. Even though I have been coming for two years, there's always something more to know and more to learn. So, that's why I keep coming back." Many students expressed similar views; they wanted to maintain and deepen the hard-earned gains they had made.

Another interviewee mentioned her desire to be challenged: “With school, nothing’s really challenging me—but through YES, I am always challenged academically.... So I decided I’d challenged myself by continuously engaging in learning for the sake of learning ... and I’m still tackling this head on.”

Relationship Building

Eight interviewees and over half of survey respondents suggested that YES’s family-like atmosphere fostered a sense of belonging that sustained their investment in the program. For example, one interviewee said, “I keep coming back because, to me, we’re all like one big family.” Another echoed this sentiment: “I feel like not only did I make friends, but I made family. [YES] became a family thing.” Yet another, a three-year participant, agreed:

YES [is] basically home, and everyone’s just family around here. Everyone knows the number one thing with me, as far as I’m concerned in my life, is family. And because I consider YES my family ... it just seemed normal for me to come back every summer.

In addition to peer relationships, respondents said that relationships with staff also played a vital role in their return to the summer program. One respondent noted that a personal invitation from the executive director was central in her decision to come back. She also said that staying in contact with staff members during the school year kept the program on her mind so that she wanted to return. Similarly, another interviewee said that what brought her back was “the overall staff.... They care about you, what you’re doing in life, and whether you’re comfortable in the program ... and if you’re not, they’ll try to make changes so that you are.”

Leadership Training

Five interviewees said that their ongoing investment in YES was related to a sense of giving back to the community and to their ability to mentor younger

participants. One interviewee expressed this desire this way: “I wanted to continue to help people understand themselves and to really get close to people so that we can work together to understand what they are going through.” Some interviewees expressed a sense of obligation to their younger peers. For example, one said, “I come back so that I can help make [my mentee’s] situation be better ... even better than mine.”

Employability Preparation

The transferability of skills to real life and the workplace sustained many YES students. One respondent affirmed this notion:

YES has provided me with many skills—both academic and non-academic—that I’ve already applied through my current school year and with experiences I found necessary and extremely useful.

Respondents reported that their summer employment prepared them for future opportunities within YES and in other careers. They felt that their exposure to work expectations and etiquette helped them navigate employment successfully and gave them a toolbox of skills for future work.

Comparison of Attracting and Sustaining Factors

Research Question 2 examines how attracting and sustaining factors compare. The results from survey and interview responses are summarized in Table 1.

Four of the five factors that attracted survey and interview respondents to the YES summer program also appear in the list of sustaining factors. However, the top attracting factor, economic opportunity, does not make the sustaining list at all. Less than 10 percent of survey respondents chose economic opportunity as a sustaining factor, compared to 80 percent who said that the opportunity to earn money was an attracting element. Only one interviewee mentioned economic opportunity as a sustaining factor.

Table 1. Comparison of Attracting and Sustaining Factors

Attracting Factors	Sustaining Factors
<ol style="list-style-type: none"> 1. Economic opportunity 2. Employability preparation 3. Relationship building 4. Academic learning 5. Leadership training 	<ol style="list-style-type: none"> 1. Academic learning 2. Relationship building 3. Leadership training 4. Employability preparation

Similarly, the employability preparation provided by work experience was cited by about 50 percent of survey respondents as an attracting factor and by only three interviewees as a sustaining factor.

The attracting factors basically are forms of capital: financial, human, and social. Though YES participants seem to have been drawn by the immediate utility of these forms of capital, these external motivations do not alone seem to be enough to sustain students' investment in the program.

The sustaining factors, by contrast, are more intrinsic. The way interviewees described academic learning, for example, went beyond cursory motivations such as good grades or post-graduation prospects to focus on the benefits of learning, of accountability, and of challenging oneself. Similarly, the way students described relationships in the program—defining participants and staff as *family*—moves beyond the possibly more superficial level of friendship that may have attracted students in the first place.

Recommendations

This study collected a rich set of perspectives on the factors that attracted low-income high school students to a summer learning program and then sustained their participation. However, the sample size was modest and limited to one program. Some of the findings may be specific to YES. Nevertheless, our results suggest approaches that summer learning programs can take to attract and sustain the participation of low-income high school youth. Because student motivations differ, successful models will be multifaceted and holistic, incorporating a variety of offerings to engage young people's interests.

Recommendations to Attract Participants

The YES experience suggests two strategies programs can use to attract participants.

Offer Paid Work Experience

Summer programs for high school students are competing with opportunities to earn money. It is not surprising that the economic opportunity provided by YES's stipended work experience and the related employabil-

Less than 10 percent of survey respondents chose economic opportunity as a sustaining factor, compared to 80 percent who said that the opportunity to earn money was an attracting element.

ity training were the top two reasons respondents said they were attracted to the program.

To offer paid work experience, programs can form partnerships with workforce development agencies. YES has a partnership with Partner4Work, the fiduciary body that provides a reimbursement grant for participant salaries. Summer learning work programs must offer in-depth

training and high-level, in-demand skills rather than providing low-skill opportunities.

Highlight Social Component

YES respondents said they were attracted to opportunities for relationship building. They talked about the importance of being surrounded by individuals who share similar life goals. They also mentioned that they lack spaces for positive peer interactions and are underexposed to positive examples. To capitalize on these interests, summer programs can highlight the social components of programming in their recruitment efforts.

One way to highlight social interactions is to conduct peer-to-peer recruitment. Such a model takes advantage of the fact that high school youth rely on peer relationships. Besides recruiting students, peers can also stay connected to “their” recruits during the school year to prime them for participation next summer.

Recommendations to Sustain Participation

Our findings suggest three strategies summer programs can use to sustain participation beyond the first year.

Create a Family Atmosphere

A sense of belonging is one of the most important human needs (Huitt, 2007). Many survey and interview respondents indicated that their investment in YES came from a sense of belonging fostered by a welcoming, family-like atmosphere.

Summer programs seeking to recruit and retain high school students should embody a similar atmosphere. They can encourage participants to build relationships with both peers and staff. YES staff make participants feel valued by supporting them in their life situations and their choices. Giving participants input into program visions and norms demonstrates respect for their perspectives.

Facilitate Growth, Work, and Reflection

Survey and interview respondents cited growth opportunities as a reason for their continued investment in YES. They described growth in academics, social and emotional wellness, and leadership capacity. They also talked about having refined their identities and their ability to hold themselves accountable for continuous learning.

Summer learning programs can sustain interest by creating opportunities for participants to explore ideas, careers, personally meaningful issues, and diverse perspectives. Giving students meaningful work and engaging them in the organization's vision also encourage persistence in the program. Participants should create their own goals so they develop self-accountability; they should also have opportunities to reflect on their progress so they see how both their self-efficacy and their role in the program are evolving.

Engage Participants in Their Communities

After participating in YES for consecutive years, participants expressed a desire to give back to the program. Summer programs can leverage this interest by creating spaces, such as surveys or small-group discussions, in which participants can provide feedback about program strengths and areas for improvement.

Programs can also foster participants' commitment to their communities and their peers by encouraging them to investigate challenges in their communities. They can support participants in learning how to conduct research. As participants study community issues and develop research skills, they are likely to gravitate toward solving the community issues they identify. In the process, they can begin to see themselves as valuable assets in their communities. Having opportunities to give back keeps participants engaged as they work on issues that are personally meaningful to them.

Improving Participation in Summer Programs

These recommendations are beginning steps toward removing barriers and improving the participation of low-income high school students in summer learning programs. The vital role of summer learning programs in improving academic achievement, sociocultural awareness, and preparation for life beyond high school make it critical that summer programs invest

Our findings suggest three strategies summer programs can use to sustain participation beyond the first year.

in recruiting and retaining low-income students.

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Practitioners Advance Equity and Access

Elizabeth J. Starr

Hill, S., & Vance, F. (Eds.). (2019). *Changemakers! Practitioners advance equity and access in out-of-school time programs*. Charlotte, NC: Information Age.

The out-of-school time (OST) field aims to provide high-quality learning experiences to all youth, especially those who have often been marginalized or excluded. However, organizational structures and funding, among other factors, have not kept pace with the needs of diverse youth populations. In *Changemakers*, editors Sara Hill and Femi Vance have collected an engaging set of essays highlighting how OST practitioners and systems are meeting the challenges of equity and access. This book is the latest entry in the series *Current Issues on Out-of-School Time*, edited by Helen Janc Malone.

As Hill and Vance point out in their introduction, equity and access are important values in the OST field. They explain that *equity* results “when young people have the tools, resources, and other supports they need to achieve desired outcomes such as self-

sufficiency and well-being” (p. 3). *Access* “refers to ensuring that OST programs are available in all communities and that youth and their families know about them” (p. 4). Using these definitions, the book examines issues ranging from funding, outreach, and organizational structure to programming for specific groups of youth.

Unifying the voices and content can be a challenge when compiling a book with multiple authors. Hill and Vance succeed in creating a clear roadmap and an easy-to-navigate structure. The introduction articulates the main theme and offers chapter summaries. The rest of the book is divided into two sections. The first, “shaping organizations for access and equity,” explores organizational policy and structure. Topics include equity at legacy organizations, equitable partnerships, youth outreach and retention, funding, and access for disabled youth. The second section, “equity through

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critical practice,” addresses “point-of-service quality,” or how professionals address equity and access when working directly with youth. Topics include critical youth development, programs for boys and young men of color, and one museum’s role in serving immigrant families.

A common chapter format further unifies the varied voices and topics of the book. Each chapter opens with a personal account or experience and then moves into description and analysis. Each ends with research questions provided by the editors. These research questions elegantly achieve several goals. First, they encourage the practitioner–researcher collaborations Hill and Vance call for. Second, they invite readers to continue questioning and exploring. Finally, they acknowledge that there is much work to do but offer direction for next steps.

Far from being just a theoretical discussion of the complex issues, this book offers concrete strategies and solutions. The book’s real-life examples are refreshing and inspiring reminders that change not only is possible but is also happening right now. Kathryn Sharpe gives specific strategies to mitigate implicit bias at legacy organizations—strategies that can be applied to other settings as well. Ken Anthony highlights six guidelines for developing and sustaining partnerships. Several authors discuss the potential of professional learning communities as a strategy. Merle McGee details activities that can be used with program participants in critical youth development practice. The examples go on. Rather than feeling overwhelmed by the challenges of equity and access, readers can be inspired by the many ways program are achieving change.

Anyone in the OST or allied youth fields can find this book engaging, thought-provoking, and useful. The stated audience for the first section is OST professionals who manage programs or who need to articulate these issues and advocate for equity and access. (In other words, all of us!) The second section targets current, former, and aspiring OST professionals and “those who shape the environment in which learning takes place” (p. 7). Researchers are another main audience; the editors stress the importance of building research–practitioner collaborations.

As Hill and Vance note, this book is not an exhaustive exploration of all obstacles to access and equity. They specifically point out the need for exploration of equity and access for youth who identify as LGBTQ, rural youth, and young people in foster care. In fact, the critical practice section

has only three chapters, as compared to five in the organizational structure section. There is indeed room for more practice examples to highlight unaddressed topics. However, the separation of sections, though it provides a helpful structure for readers, is somewhat arbitrary. In the first section, authors discussing organizational structure also offer ideas about daily youth work practice. For example, Rachel Loeper, in her chapter about funding, highlights several point-of-service strategies for outreach and retention, such as offering flexible programming and multiple levels of engagement. Meanwhile, authors of the critical practice chapters offer insights about structural equity and access. For example, Jon Gilgoff’s chapter about programming for boys and young men of color discusses the contribution of macro-level policies and practices such as developing a responsive OST workforce. The editors acknowledge the importance of addressing both structural and practice areas simultaneously; as I read, I was reminded that they are difficult to separate.

Intentionally bringing the enormous expertise of practitioners to the forefront is perhaps the greatest strength of this volume. Each author generously shares the background, experiences, and personal identities that inform their perspective. In modeling this vulnerability, they invite all of us to do the same—and to think about the challenges and solutions we can see and act upon. This invitation is ultimately why the book is so compelling.

In spite of the complexity and depth of the challenges of equity and access, *Changemakers* is a hopeful book, one that leaves us not only with a desire to take action, but also with some concrete ideas of how to do so. Ashoka, the network of social entrepreneurs that coined the book’s title term, uses the slogan “everyone a changemaker.” This idea of universal agency is implicit throughout the book: Everyone has the power to see a problem and make change. Just as talent among youth is not a limited resource, so changemakers are not limited in number. The authors leave us feeling educated, hopeful, and empowered to make change.

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Afterschool Matters

Call for Papers

Afterschool Matters is a peer-reviewed journal dedicated to promoting professionalism, scholarship, and consciousness in afterschool education. Published by the National Institute on Out-of-School Time with legacy support from the Robert Bowne Foundation, *Afterschool Matters* serves practitioners who work with youth in out-of-school time (OST) programs, as well as researchers and policymakers in youth development.

We are seeking articles for future issues of the journal, beginning with Spring 2021. Scholarly or practice-based work on all aspects of OST programming for children and youth, from a variety of disciplines and academic perspectives, will be considered. We welcome submissions that explore practical ideas for working with young people in OST programs. Personal or inspirational narratives and essays are appropriate for our section “Voices from the Field.”

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- Innovative program approaches in creative youth development, STEM, civic engagement, social and emotional development, or academic improvement
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- OST system-building, such as cross-city and statewide initiatives
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- School-community partnerships that support OST programming
- Physical activity and healthy eating
- Special needs youth, immigrant and refugee youth, or other vulnerable populations in OST
- Youth-centered participatory action research projects
- Gender-focused research and policy initiatives related to OST

Submission Guidelines

- For consideration for the Spring 2021 issue, submit your article no later than June 15, 2020, to ASMsubmission@wellesley.edu.
- Submissions should not exceed 5,000 words.
- Submit your article electronically in Microsoft Word or rich text format. Use 12-point Times New Roman font, double-spaced, with one-inch margins on all sides. Leave the right-hand margin ragged (unjustified), and number pages starting with the first page of text (not the title page, which should be a separate document).
- Include a separate cover sheet with the manuscript title, authors' names and affiliations, and the lead author's phone number and e-mail address.
- The names of the authors should not appear in the text, as submissions are reviewed anonymously by peers.
- Follow the *Publication Manual of the American Psychological Association, 6th Edition (2009)*, for reference style guidelines. Present important information in the text and do not use extensive footnotes.

We welcome inquiries about possible article topics. To discuss your ideas, please contact:

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