

# Afterschool Matters

Number 33 • Fall 2020



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*Equity Evaluations, Recommendations, and Critiques*  
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National  
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**Teacher, Researcher, Designer**  
*Science Museum Internships Expand What Counts as STEM*

Carrie D. Allen  
Science museum

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## WELCOME

In January 2020, we were having conversations about how this year, because of its very name, would be a year of reflection. We would use our 20/20 lens to clarify our visions of our work, life, and family and to reflect on the surrounding world. January is named for Janus, the Roman god of beginnings and endings. Janus, who controlled doors and gateways, was usually depicted with two faces, one looking back and one looking forward.

Looking back on 2020 so far, the year certainly has not been what we expected when we looked forward from January. Still, though 2020 has been shattering in many ways, it has prompted many to rededicate ourselves to reflection.

In the out-of-school time (OST) field, we have had to refocus on how to distill the most important elements of high-quality programming and realize those elements online. We're reflecting and acting on ways to support our colleagues who teach traditional school. We've been leveraging our unique relationships with youth and their loved ones to step into the void left by pandemic-ravaged systems to bring food, technology, at-home learning, and friendship to thousands of families.

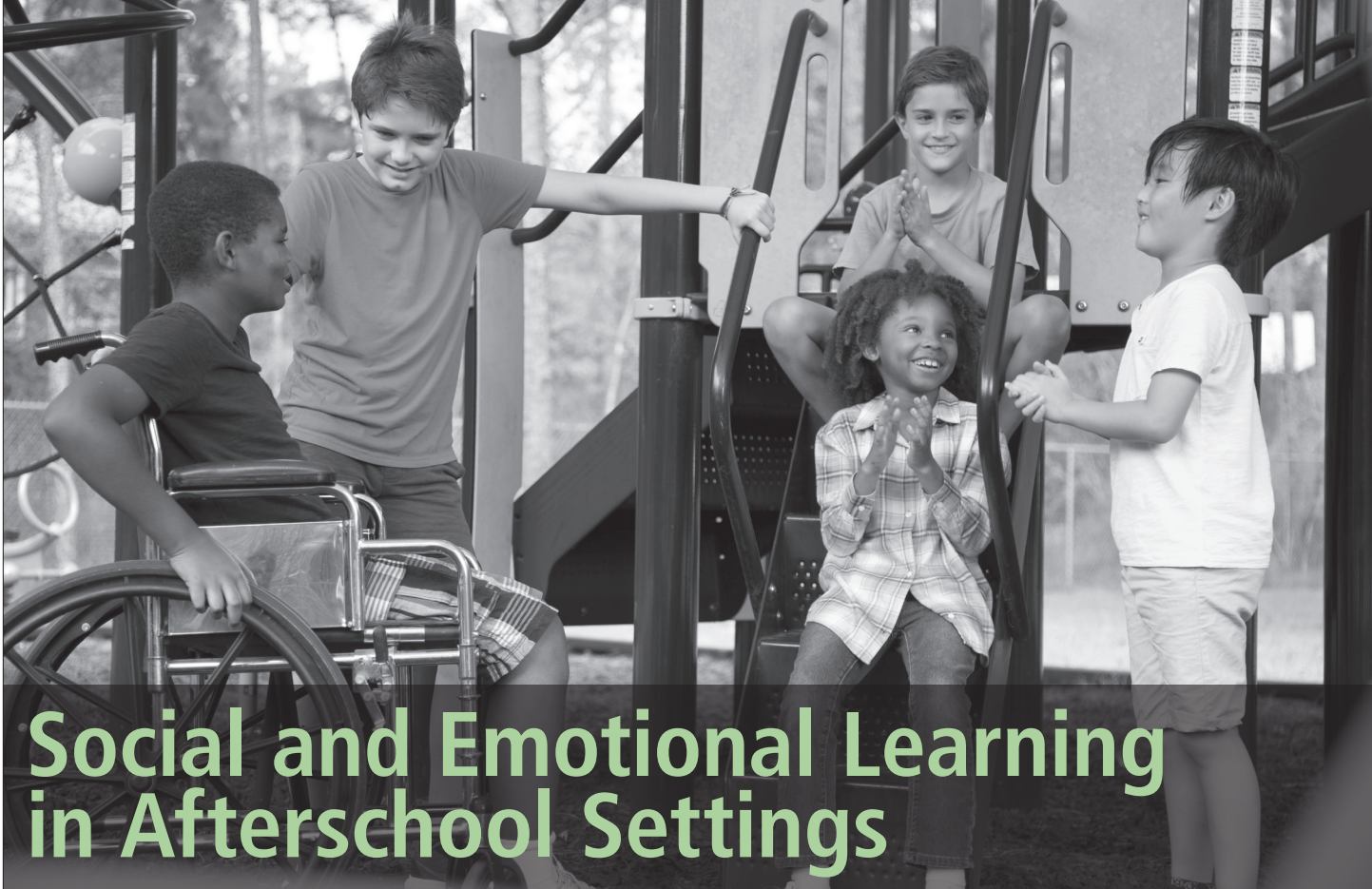
Here at NIOST, we have learned a great deal this year. Our researchers observed over 200 hours of summer online academic and general enrichment delivered through partnerships between schools and community-based organizations in the Boston Summer Learning Community. We saw OST professionals exercising the flexibility and creativity that characterize our profession to transition from in-person to virtual delivery. See our website for a quick snapshot: <https://www.NIOST.org/Summer2020>.

As we push forward into late fall and winter, NIOST and OST professionals everywhere will continue to partner with schools and teachers, build on what we have learned, and equip children and teens to meet the challenges of the months ahead.

The articles in this issue of *Afterschool Matters* reflect the broad range of program activity, scholarship, and youth outcomes research in the OST field. We continue to do all this work—summer and STEM programming, digital badging, project-based learning, mentoring, social and emotional skill building, and volunteer management—whether we are in person or remote! If there is one clear vision for the OST field in 2020, this is it: We are going to carry on.



Director & Senior Research Scientist, NIOST  
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# Social and Emotional Learning in Afterschool Settings

Equity Evaluations, Recommendations, and Critiques

**Veronica Benavides, Shakirra Meghjee, Tasha Johnson,  
Aasha Joshi, Christine Ortiz, and Victor Rivera**

Social and emotional learning (SEL) has proven to be an effective conduit to improved attendance scores, grades, and graduation rates; to adaptive behaviors and gainful employment in adulthood; and to a wide variety of other measurable factors spanning the spectrum of human adaptiveness and wellness (Aspen Institute, 2018).

Although SEL has been integrated into many school-based programs to support student success, afterschool or out-of-school time (OST) programs are uniquely suited to SEL development. OST programs provide the opportunity for niche, interest-based projects that are emotionally engaging for youth; they also foster close adult relationships and opportunities for youth agency and leadership, among many other features (Olson, 2018).

SEL can have an incredibly powerful impact on equity efforts. It can enhance academic, emotional, social, and career wellness—areas of youth and human development that are all directly and severely affected by inequity. That said, the application of SEL to OST is rife with equity issues and concerns. These considerations are critically important in light of the reality of systemic oppression—the context in which everything “social” exists. One cannot consider the

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whole child or support their SEL and development without first understanding the historical context that shaped their experience and the systemic sociopolitical and circumstantial forces at play in their life.

Our exploration of the intersections of SEL and equity in afterschool environments results from a partnership between the YMCA and Equity Meets Design, an organization dedicated to delivering equitable OST programs to youth and communities. The first step in exploring models and promising practices for equity was a comprehensive research synthesis. This article presents key findings and recommendations from our research into existing scholarship and best practices. First, we outline the rationale, research questions, and methodology. Then we present our findings on major themes in the literature. Next, an equity “deep dive” explores the intersections of SEL and equity in OST settings. We conclude with recommendations to the field.

## Rationale

Communities and neighborhoods across the United States are changing rapidly in many ways. Newcomers are settling in communities of all sizes and demographics. Individuals of different abilities, faiths, gender identities, and sexual orientations are making their voices heard in larger numbers than ever. Meanwhile, around the world, technology is shrinking distances among people, places, and organizations; no event is isolated. What happens halfway around the world affects everyone. The YMCA has positioned itself to drive and support these changes, domestically and internationally.

Evolving communities represent new opportunities for the YMCA, a global organization that promotes social responsibility, youth development, and healthy living across diverse communities. YMCA staff understand that, when they respond effectively to changing community needs, they are positioned to ensure access, engagement, and inclusion for all to address pressing issues. Intentional engagement and outreach strategies allow the YMCA to reach diverse, isolated, and underserved populations. These strategies build bridges to serve the needs of all populations in new and better ways. Being inclusive elevates the “Y experience” for everyone who walks through the doors. In this way, the YMCA advances its cause to build, rebuild, and strengthen community.

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As the YMCA works to build inclusive OST settings for youth, it has intentionally focused on equity. In partnership with Equity Meets Design, an organization dedicated to redesigning inequity and racism in the U.S., the YMCA explored the conditions and resources needed to advance equity for youth through OST programming.

## Research Questions

Research shows that SEL programming in OST settings leads to improved outcomes for youth across a variety of measures (Durlak & Weissberg, 2013). A comprehensive meta-analysis of afterschool programs found that OST program participants demonstrated increases in academic performance, positive feelings and self-perceptions, and bonding to school (Durlak et al., 2010).

In an effort to design inclusive OST settings, YMCA leaders sought to understand ways to ensure equity in experiences and outcomes for youth. This research synthesis examines the intersections of SEL and equity in OST settings. The following research questions guided the design and implementation of the literature review:

- What do effective SEL practices, policies, and principles look like in OST settings?
- What do equitable practices, policies, and principles look like in OST settings?

In answering these research questions, we found few resources on the intersection of SEL and equity. The following research question emerged from our discovery of this gap in the literature:

- In what ways do SEL and equity practices, policies, and principles intersect in OST settings?

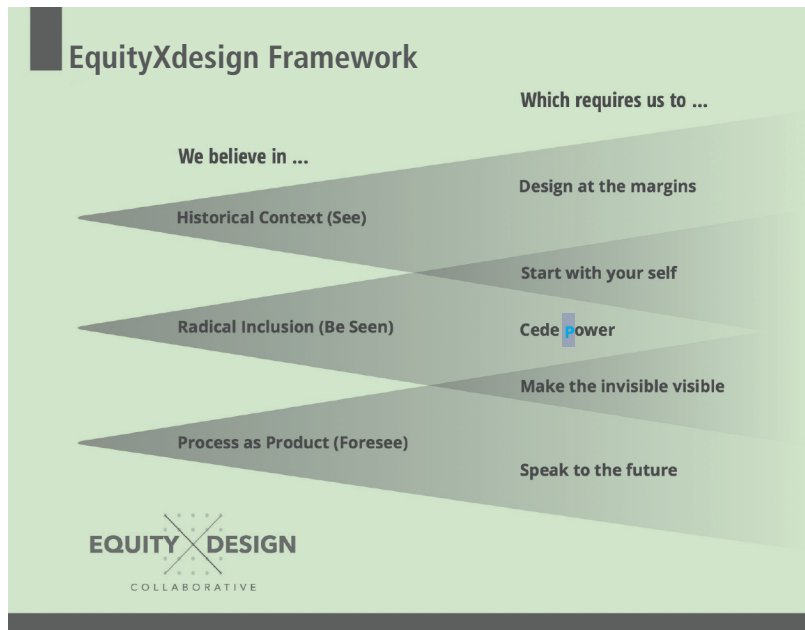
We explore this final research question in the equity deep dive section of this article.

## Methods

To answer the research questions, we explored existing scholarship at the intersection of SEL, afterschool programming, and equity. We grounded our review in Equity Meets Design’s conceptual framework for equitable and anti-racist design, shown in Figure 1.

We followed the scoping review method (Arksey & O’Malley, 2005) for our analysis of the literature. We searched for terms related to SEL, OST, inclusion, and equity. The literature we reviewed included

**Figure 1. EquityXdesign Framework**



Source: EquityXdesign, 2016. Reprinted with permission.

peer-reviewed articles as well as policy, research, and evaluation reports published by practitioners.

**Findings: Three Themes**

The review of literature elevated three interconnected themes regarding effective and equitable SEL practices, policies, and principles in OST settings. Figure 2 illustrates these three components.

**Customization and Specificity**

Effectively applying SEL in afterschool environments requires consideration of the unique characteristics and implications of OST. Jones and colleagues (2017)

**Figure 2. Advancing Equity in OST Through Social and Emotional Learning**



state that OST practitioners must have a working understanding of different approaches to SEL, gain clarity about exactly how they are supporting SEL skills, and be intentional about collaborating with school partners. When OST programs are deliberate about how they address and support SEL, outcomes improve, and there is more alignment among SEL efforts and expectations across settings. Furthermore, components of SEL programs should be compatible with the organization’s mission and pedagogical approach and with the needs of the specific population being served (Jones et al., 2017). Because OST settings have smaller blocks of time to work with than schools do, OST SEL programs should be engaging and should match the

purpose and character of the organization in order to have the greatest impact on participants in the time available (Gullotta, 2015).

Similarly, programs must balance being adaptable and being consistent; they must offer enough variability in program content to continuously engage youth, while still being consistent enough to be manageable and sustainable (Gullotta, 2015). Devaney (2015) adds that, for SEL to have an impact, program quality must be high and young participants must engage for at least 30 to 40 days per year. Equity rightsizing necessitates that participants influence program changes. They must have authentic youth development experiences that are facilitated by people who represent their cultural and contextual backgrounds and are skilled in equity pedagogy.

**Standardization and Measurement**

Lack of standardization, measurement, and quality control in OST settings adversely impacts the effectiveness of SEL interventions. Although the effects of OST programming on school achievement and on SEL outcomes are well documented (Olson, 2018), SEL OST programs, by and large, lack benchmarks and metrics, making it difficult to focus content and measure effectiveness. Several scholars suggest that effective and reliable measurement is necessary to enable OST organizations to customize programming, engage in continuous improvement, and evaluate program impact (Naftzger & Terry, 2018; Noam et al., 2018).

Despite the clear benefits of SEL in OST settings, the outcomes and impact are difficult to measure (Hurd & Deutsch, 2017). Researchers struggle to isolate program effects due to factors like sporadic participant attendance and differences in implementation among sites. Therefore, Hurd and Deutsch (2017) recommend expanding measurement criteria; they also warn against the high-stakes testing culture that shapes many school settings. Equity pedagogues have long advocated against broad targets for mastery and excellence levied against groups that have historically been marginalized and oppressed. The OST field, and the YMCA specifically as a legacy organization, has an opportunity to slant the trajectory toward justice by embracing inclusive, human-centered, and equitable assessment and evaluation methods that will inform high-quality youth development for all.

Effective OST program evaluation relies on youth satisfaction surveys, strong quality assessment and improvement practices, and decisions to measure only a few variables at once (Devaney, 2015). Although there are rigorously validated tools to measure SEL outcomes (Wilson-Ahlstrom et al., 2014), only a handful have been tested in afterschool settings and are free for use. In light of these limitations, Devaney (2015) argues for SEL measurement tools that are explicitly designed for afterschool settings.

A 2003 report on afterschool equity, access, and diversity trends in California (Scharf, 2003) found that data collection and analysis efforts generally did not focus on equity issues. Less than 30 percent of 273 surveyed programs collected the kind of data needed to assess how well different types of youth were being served. An even smaller subgroup, only 11 percent, did any analysis of differences among groups (Scharf, 2003). When OST programs are encouraged and guided to analyze participant data by subgroups, they often find significant differences. More recent studies have found that, despite advancements in data collection, many OST programs struggle to measure social and emotional competencies and equity indicators (Spielberger et al., 2016; Noam et al., 2018). Youth development program influencers and decision-makers need equity-focused data to define targeted interventions, redirect resources

to youth in greatest need, and recalibrate strategic goals to support underserved and underrepresented groups.

Devaney (2015) defines multiple frameworks for approaching SEL and encourages OST SEL programs to carefully choose one framework based on their goals and on the needs of their students. Programs should clearly define a minimum number of benchmarks on which to base their measurement of the framework's efficacy. These frameworks could include noncognitive skills, 21st century skills, and character development (Devaney, 2015).

Equity pedagogues have long advocated against broad targets for mastery and excellence levied against groups that have historically been marginalized and oppressed.

### ***Equity and Trauma-Informed Practice***

SEL supporters advocate personalized learning and whole-child development. However, without sufficient equity consciousness and training for staff and teachers, SEL interventions run the risk of manifesting biases and perpetuating problematic perspectives and dynamics. According to the Aspen Institute (2018), an equity-focused and emotionally intelligent approach to SEL includes:

- Improving learning environments, reducing bias, and building asset-based mindsets in students and staff
- Improving culture and climate, which are critical for SEL
- Directly addressing stereotype threats and implicit bias
- Supporting staff in dealing with social and emotional assets and needs and with secondary trauma and stress
- Using resources for enrichment rather than for remedial academic instruction

Stafford-Brizard (2018) states that adults can play a significant role in modulating the behavior of students if they are aware of possible triggers so they can design routines and structures accordingly. In a similar vein, Reeve (2004) discusses the profound benefit to students when teachers support student autonomy. Such support is relatively uncommon, especially in education environments with significant equity challenges, but it fosters creativity, imagination, and curiosity, in addition to competence and self-



authorship (Reeve, 2004). Additionally, researchers and practitioners emphasize the importance of taking a trauma-informed approach and of empowering participants and staff to support one another to succeed (Afterschool Alliance, 2018).

Furthermore, OST programs can't foster SEL in communities where they don't exist. Communities of color, specifically black and brown communities, have proportionally fewer OST programs than white communities (Pittman et al., 2003). The OST programs that do exist tend to be underfunded and to lack richness, depth, and diversity of activities; most are in dire need of more training and resources (Jones et al., 2017). In California in 2003, the number of OST programs serving predominantly African-American youth was proportionally lower than for other youth populations, and the OST programs that were available had lower budgets and fewer enrichment components (Scharf, 2003).

Research on the equity and access of OST programming in the U.S. reveals that low-income and rural communities are often underserved, immigrant youth are often underrepresented, awareness and inclusion of LGBTQ+ youth populations is often lacking, training on how to serve children with physical disabilities is almost nonexistent, and interesting programs for older youth are rare (Olson, 2018; Pittman et al., 2003; Scharf, 2003). These programmatic barriers are compounded by societal barriers such as lack of access to reliable transportation.

## Equity Deep Dive

This deep dive examines the intersections of equity and SEL practices, policies, and principles in OST settings.

It is well known that many students face adversity outside of school—in housing and food insecurity, inadequate access to health care, and disproportionate punishment by the criminal justice system, for example—which impedes their ability to learn in school. Too often, however, students of color also face adversity inside of school, including lower expectations, harsh disciplinary approaches, negative school environments, and racial microaggressions that disconnect rather than connect them to school. (Aspen Institute, 2018, p. 2)

The Aspen Institute's statement about schools can also be OST settings, where children can face the same challenges. It illustrates the unfortunate paradox of applying SEL to marginalized student populations

without taking a socially and emotionally conscientious approach to understanding and honoring the systemic impacts of inequity in young people's in-school and OST experiences. A truly effective and holistic SEL approach requires rigorous examination of all forces of inequity, both exterior and interior, in order to neutralize the impact of those forces.

Some SEL advocates champion greater reporting, administrative coordination, and shared interfaces between OST environments and schools (Olson, 2018). Such efforts are certainly important for SEL OST standardization and quality control. Clear goals and metrics that align with a shared vision allow continuous reflection and improvement and enable identification of existing or emerging inequities. Additionally, programs that define success targets for participants from marginalized groups need increased access to quality improvement tools and resources to support practitioners' professional development (Pittman et al., 2003).

Although tracking and reporting can be linked to improved outcomes for children, programs and stakeholders must critically evaluate the purpose and impact of success targets and measurement practices to see if they truly serve the needs of marginalized student populations. Pittman et al. (2003) state:

There is enormous pressure to find ways to maintain or increase the numbers served and to link outcomes to academic performance and, for middle and high school youth, risk reduction. These pressures make it all the more important that access and equity questions be asked and answered. Without a clear focus on who is being reached and how they are being supported, the answer to the "which third?" question [that is, which young people will benefit] is likely to become "the third that is easiest to reach and easiest to teach." (p. 5)

This statement illustrates the ongoing nature of equity issues surrounding SEL and OST environments. For example, OST programs committed to the development of the whole child often emphasize physical health and safety (Stafford-Brizard, 2018), as these are prerequisites for learning and thriving. For many black and brown children, these foundational factors are not a given (Aspen Institute, 2018). Because properly resourced and effectively practiced SEL programs have enormous potential to ameliorate the effects of systemic oppression on youth of color,

compounding and cyclical differences in access to high-quality SEL OST programming become even more critical.

In general, the efficacy of SEL OST interventions is mediated by the quality of the program and the level of youth participation and engagement (Devaney, 2015). The SAFE framework—sequenced, active, focused, and explicit SEL activities—gives OST programs evidence-based practices to help them better manage the quality of their SEL initiatives (CASEL, 2020). SAFE focuses on progressive skill development, with an emphasis on SEL skills, and on active student engagement in learning these skills (Durlak et al., 2010). For youth who face opportunity gaps, such a logical, sequential, and predictable model of engagement, interaction, and instruction presents a platform in which teachers and learners can customize learning, explore development in authentic settings, and model and explicate what excellence looks and sounds like.

The issue of equity for OST programs is nuanced and multifaceted. Pittman et al. (2003) outline the stances common to programs that attend to equity issues: “cultural embeddedness, support for identity development, cross-cultural and anti-bias learning, strong youth leadership, and staffing practices designed to directly respond to diversity and equity” (p. 4). These program characteristics are less concrete, more complex, and more expensive than more tangible elements such as safety and recreation (Pittman et al., 2003).

Despite these challenges, some SEL OST programs represent equity in both their internal operations and their external words and deeds. For example, the McKinley Afterschool Program of the Southeast Bronx Neighborhood Center in New York challenges students to work on activities that address local community issues (Afterschool Alliance, 2018). One team of students chose to educate their community about gun violence. Their initiatives included community performances, a documentary against gun violence, and a virtual town hall (Afterschool Alliance, 2018). This type of programming provides a space for strong youth leadership and a platform for positive identity development.

Considering systemic oppression and the development of the whole child together can enable OST programs to integrate SEL and equity. When they fully serve children at the margins, they can also better serve the youth population at large.

In another example outlined by the Afterschool Alliance (2018), the Boys & Girls Club of Souhegan in Milford, New Hampshire, began a youth empowerment service team through which middle schoolers committed themselves to the cause of reducing opioid overdoses. The team designed an action plan focused on prevention and mental health and hosted a youth summit for local schools and community organizations (Afterschool Alliance, 2018).

The YMCA has similar examples. Some local affiliates offer camps targeted to youth of color, youth with exceptionalities, or LGBTQ+ youth. Where local affiliates identify these programs as priorities, the YMCA national office provides evidence-based support and curates critical insights. The national organization also has a “grow your own” pipeline leadership fellowship and strategic staffing practices designed to support diversity, equity, and inclusion.

These and similar equity-informed, socially just, and culturally and contextually relevant operations are potential arenas in which marginalized youth and adult practitioners can transform life outcomes for the next generation of leaders and learners. Without an equity focus, the phrase “social and emotional learning” can be an empty promise at best; at worst, it contributes to disparate access. Considering systemic oppression and the development of the whole child together can enable OST programs to integrate SEL and equity. When they fully serve children at the margins, they can also better serve the youth population at large.

## Recommendations

This literature synthesis reveals that the priorities of SEL and equity initiatives in OST are complementary. Research shows that the integration of SEL and equity is essential to establishing inclusive and just OST experiences for youth. However, a disconnect persists between SEL programming and the practical application of principles of inclusion and equity. Building on our research, we suggest four considerations for OST programs as they design SEL programming.

**Align program implementation and organizational strategy with the mission and character of the organization.** Programs must deeply examine,

adjust, and align program components like mission, population served, stakeholder needs and strengths, pedagogical approach, and staffing decisions to ensure that participants experience impactful SEL OST programming. Many OST programs are grounded in equitable missions and visions. However, program implementation can stray from the mission due to funding and other factors. Therefore, practitioners must maintain a laser focus on stakeholder needs, characteristics, and desires and must act in alignment with their mission and purpose.

**Choose appropriate SEL frameworks and specific metrics based on participant needs and program goals.** Measurements of the effectiveness of SEL programming should reveal to what degree and how well different types of participants are served so that programs can engage in continuous improvement driven by data. An equity perspective on measurement includes asking participants what they think by, for example, fielding youth satisfaction surveys. Quality assessment and continuous improvement practices must examine the impact of SEL program practices on specific subgroups of participants. An equity perspective therefore includes pushing for more accurate measures of the effectiveness of SEL interventions among subgroups. All of these aspects of an inclusive perspective on measurement are critical to equitable implementation of SEL both in individual OST programs and at scale in the practice community at large. More intentional benchmarks and measurement practices can help to unlock the potential and potency of SEL.

**Apply an equity lens to all proposed SEL interventions.** Equity-focused OST programming supports positive identity development, cultural responsiveness, and student-led learning. To ensure that SEL activities help children at the margins, OST programs must provide equity training for staff and volunteers. Personal reflections on positional privilege and power are a vital part of such training. Program leaders must invest in improving the climate and culture of SEL programming through transparent conversations about the intersections of SEL and equity. To support the social and emotional development of the whole child, program staff must understand the historical context of children's lives and the systemic forces that affect them. Furthermore, program leaders should adopt intentional staffing practices to support equity, which includes hiring former program participants and other members of the immediate community.

**Address systemic oppression explicitly.** Tradi-

tional OST programming can solidify the status quo of systemic oppression. From barriers related to fees, transportation, and lack of community partners to the absence of awareness of inclusion, difference, and exceptionalities, traditional OST practices must change in a fundamental way. In addition to examining and addressing systemic inequities embodied in policies and practices, programs and OST networks must work intentionally to transform adult skills, attitudes, and behaviors. Individuals contribute to the larger system. Therefore, changes on an individual level—for example, in the form of heightened awareness of microaggressions or knowledge of strategies for culturally responsive programming—will undoubtedly contribute to transformative system-level change.

## Giving Voice to the Voiceless Changemakers

We conducted a comprehensive literature review as part of the YMCA's organizational and community commitment to continuous improvement, diversity and inclusion, and high-quality youth development. This synthesis reveals the complexity of the charge to youth development leaders to positively influence the lives of 21st century learners.

Collaboration is a key ingredient in bringing an equity lens to bear on SEL programming. For example, the YMCA's partnership with Equity Meets Design gives voice to voiceless changemakers in the struggle for social justice and equality while invoking the spirit of culture and community. The example of our two organizations, one legacy and the other entrepreneurial, may inspire other OST organizations and networks to embrace the many intersections of SEL and equity as they maintain their relentless focus on meaningful youth development.

## References

- Afterschool Alliance. (2018). *An ideal opportunity: The role of afterschool in social and emotional learning*. Issue Brief No. 71. [http://afterschoolalliance.org/documents/issue\\_sel\\_71.pdf](http://afterschoolalliance.org/documents/issue_sel_71.pdf)
- Arksey H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8, 19–32.
- Aspen Institute. (2018). *Pursuing social and emotional development through a racial equity lens: A call to action*. [https://assets.aspeninstitute.org/content/uploads/2018/05/Aspen-Institute\\_Framing-Doc\\_Call-to-Action.pdf](https://assets.aspeninstitute.org/content/uploads/2018/05/Aspen-Institute_Framing-Doc_Call-to-Action.pdf)

- CASEL. (2020). Approaches. <https://casel.org/what-is-sel/approaches>
- Devaney, E. (2015). *Supporting social and emotional development through quality afterschool programs*. American Institutes for Research. <https://www.air.org/sites/default/files/downloads/report/Social-and-Emotional-Development-Afterschool-Programs.pdf>
- Durlak, J. A., & Weissberg, R. P. (2013). *Afterschool programs that follow evidence-based practices to promote social and emotional development are effective*. Big Views Forward: A Compendium on Expanded Learning. [https://www.expandinglearning.org/docs/Durlak&Weissberg\\_Final.pdf](https://www.expandinglearning.org/docs/Durlak&Weissberg_Final.pdf)
- Durlak, J. A., Weissberg, R. P., & Pachan, M. (2010). A meta-analysis of after-school programs that seek to promote personal and social skills in children and adolescents. *American Journal of Community Psychology*, 45, 294–309.
- EquityXdesign. (2016, November 16). Racism and inequity are products of design. They can be redesigned. *Medium*. <https://medium.com/equity-design/racism-and-inequity-are-products-of-design-they-can-be-redesigned-12188363cc6a>
- Gullotta, T. P. (2015). After-school programming and SEL. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (p. 260–281). Guilford Press.
- Hurd, N., & Deutsch, N. (2017). SEL-focused after-school programs. *The Future of Children*, 27(1), 95–115. [https://futureofchildren.princeton.edu/sites/futureofchildren/files/media/foc\\_spring\\_vol27\\_no1\\_for\\_web\\_0\\_0.pdf](https://futureofchildren.princeton.edu/sites/futureofchildren/files/media/foc_spring_vol27_no1_for_web_0_0.pdf)
- Jones, S., Bailey, R., Brush, K., & Kahn, J. (2017, December 8). *Social and emotional learning in out-of-school time settings*. Harvard Graduate School of Education. <https://www.wallacefoundation.org/knowledge-center/Documents/Social-and-Emotional-Learning-Out-of-School-Time-Settings-Brief.pdf>
- Naftzger, N., & Terry, S. (2018). Measuring social and emotional skills in OST settings. In E. Devaney & D. A. Moroney (Eds.), *Social and emotional learning in out-of-school time: Foundations and futures* (pp. 285–304). Information Age Publishing.
- Noam, G. G., Allen, P. J., & Triggs, B. (2018). The measurement of youth social and emotional competencies in OST settings. In E. Devaney & D. A. Moroney (Eds.), *Social and emotional learning in out-of-school time: Foundations and futures* (pp. 245–264). Information Age Publishing.
- Olson, L. A. (2018). *School-community partnerships*. Aspen Institute National Commission on Social, Emotional, & Academic Development. <https://files.eric.ed.gov/fulltext/ED585606.pdf>
- Pittman, K., Wilson-Ahlstrom, A., & Yohalem, N. (2003, July). *After-school for all? Exploring access and equity in after-school programs*. Out-of-School Time Policy Commentary 4. Forum for Youth Investment.
- Reeve, J. (2004). Self-determination theory applied to educational settings. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 183–204). University of Rochester Press.
- Scharf, Amy (2003). *Pursuing the promise: Addressing equity, access, and diversity in after school and youth programs*. California Tomorrow.
- Spielberger, J., Axelrod, J., Dasgupta, D., Cerven, C., Spain, A., Kohm, A., & Mader, N. (2016). *Connecting the dots: Data use in afterschool systems*. Chapin Hall at the University of Chicago. <https://www.wallacefoundation.org/knowledge-center/Documents/Connecting-the-Dots-Data-Use-in-Afterschool-Systems.pdf>
- Stafford-Brizard, K. B. (2018, September 23). The case for expanding the definition of “personalization” to meet the needs of the whole child. EdSurge. <https://www.edsurge.com/news/2018-09-23-the-case-for-expanding-the-definition-of-personalization-to-meet-the-needs-of-the-whole-child>
- Wilson-Ahlstrom, A., Yohalem, N., DuBois, D. L., Ji, P., & Hillaker, B. (2014). *From soft skills to hard data: Measuring youth program outcomes*. Washington, DC: Forum for Youth Investment.



# Teacher, Researcher, Designer

Science Museum Internships Expand What Counts as STEM

**Carrie D. Allen**

The well-documented underrepresentation of women and people of color in science fields (Ong et al., 2011) remains persistent in the United States (National Science Foundation, 2018). A growing body of research suggests that a contributing factor is the ways in which K–12 learning environments recapitulate constrained notions of what it means to participate in and be “good at” science, technology, engineering, and mathematics (STEM).

Young people’s experiences with STEM disciplines in school often involve arriving at established answers in uniform ways (Calabrese Barton et al., 2012; Carlone et al., 2014). Therefore, students who can get the answer quickly and work independently are more likely to be seen as “scientific” by their peers and teachers (Carlone et al., 2011). Ability in mathematics

is often treated as a stagnant trait (you have it or you don’t); emphasis on learning through trying and doing is often absent (Dweck, 2013). Further, in schools, STEM disciplines are often treated separately, with little connection made across domains (Honey et al., 2014), which are not seen as integrated ideas and resources for sense-making.

Such classroom practices offer limited avenues for young people to express themselves or be recognized as STEM-oriented people (Allen & Eisenhart, 2017; Carlone et al., 2014; Eisenhart & Allen, 2016; Nasir & Vakil, 2017). They can isolate youth from the rich applications of STEM practices and culture. Additionally, they tend to further marginalize youth already underrepresented in STEM fields (Carlone et

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al., 2014; Nasir, 2012) by favoring dominant students (typically White and male) while repeating limited notions of STEM (Carlone et al., 2011).

By contrast, learning environments that enable young people to participate in and engage with diverse STEM practices hold promise for reimagining what counts as STEM and, ultimately, for broadening participation (Eisenhart & Allen, 2020). Out-of-school time (OST) STEM learning experiences have great potential for supporting robust notions of STEM practices and providing opportunities for youth to engage in STEM-linked identity work (Adams & Gupta, 2013; Adams et al., 2014; Bell et al., 2009). For example, OST STEM experiences can bolster young people's science-linked identities across OST and formal classroom learning environments (Adams & Gupta, 2013; Calabrese Barton et al., 2013). They can open up possibilities for young people to participate in STEM and be recognized as "a STEM person" by their peers and teachers.

Further, research suggests that OST STEM programs ignite participants' interests and support their learning and identification with STEM in ways they do not experience in school. In an analysis of girls' participation in an afterschool science camp, Riedinger and Taylor (2016) found that engagement in authentic science tasks supported participants' science-linked identities in ways not provided in school. One participant, for instance, shared that, although she was known as a "good worker" in science class at school because she took good notes, her interest in science often waned. Through her participation in the science camp, and particularly in field labs, she came to see herself as a scientist—because she was "actually do[ing]" science work (Riedinger & Taylor, 2016, p. 3). Similarly, in their analysis of the Explainer program at the New York Hall of Science, Adams and Gupta (2013) found that participants' newfound confidence in their science ideas traveled with them from the museum into the classroom. They shared that they learned more as Explainers than they did in school.

In science museum programs specifically, young participants may come to see themselves as part of a broader community that works toward common

interests and goals related to science and STEM (Adams et al., 2014). Such recognition by their peers can foster a collective identity (Riedinger & Taylor, 2016) that supports them in navigating difficult challenges as they pursue STEM-related college degrees (Adams et al., 2014). OST STEM learning experiences thus have potential to support participants' interest in and pursuit of STEM. Still, the field needs to identify which aspects of program design lead to these desired outcomes. This research can inform approaches to STEM learning in K–12 schools and support understanding of the kinds of learning opportunities that foster youth identity work in STEM across settings (Penuel et al., 2016).

This paper draws on participant interview data and science museum artifacts to understand the relationship between the design of science museum internship programs and the STEM identity work of the participants. The analysis focuses on what it means to be recognized as "a STEM person," participate in STEM-related activities, and pursue STEM interests in science museum internship programs.

## Understanding STEM Identity in Science Museum Internship Programs

To examine the relationship between STEM identity work and the design of science museum internship programs, I drew on conceptual tools from social practice theory. The work of Holland and colleagues (Holland et al., 1998; Holland & Lave, 2009) views identity as being constructed in local practice. The theory focuses on three central components of identity construction:

- The **institutional forms**, practices, or opportunities that organize people for participation in local practices. In the museum program, what STEM activities are available to interns, and how do they gain access?
- The **"figured worlds"** or cultural visions that provide symbolic resources for interpreting or mediating participation. What ideas are circulating

among the science museum interns about what it means to engage in STEM or be a STEM person?

- The process of **self-authoring** through which individuals develop identities-in-practice. What do participants emphasize when they talk about their

In science museum programs specifically, young participants may come to see themselves as part of a broader community that works toward common interests and goals related to science and STEM.

involvement in the museum or the ways in which they are doing STEM?

This analysis employed an embedded case approach (Yin, 2013) to explore the relationship between the design of science museum internship programs and participants' self-authoring in these programs. I examined this issue in two science museums that offered long-term internship programs for middle school to college-aged youth. These programs were selected because their interns were part of a larger longitudinal study examining interest development, persistence in learning, civic participation, and development of future selves for youth in Connected Learning programs (<http://clrn.dmlhub.net/projects/longitudinal-study-of-connected-learning>). Of the three science museums in the larger study, "City Science Academy" and "Coastal Science Museum" (both pseudonyms) were most similar in program design and had the most participants. Both were based in large cities. Their internship programs were for high school and college youth, who were required to apply for the position and were paid for their work. In both programs, interns were expected to work on the museum floor as educators to the public. Through regular participation and skill mastery, interns eventually took on greater responsibility and new roles.

The study focused on 13 participants who served as interns in one of the two science museums and who identified as members of one or more groups that are underrepresented in STEM: female, Black, or Latinx. Members of the Connected Learning project team—a mix of faculty and graduate students from the University of Colorado at Boulder, including me—surveyed and interviewed the study respondents over a three-year period. Interview topics included how participants became involved in the program, how their participation changed over time, what their interests were in the program, and how their involvement connected to future plans. All interviews were audio-recorded and transcribed to be coded later by all members of the research team.

Analysis focused on how respondents described the primary activities in which they engaged in the science museum internship program, how their involvement and interests changed (or not) over time, and what their plans were for future engagement in either the program or related STEM activities, such as pursuing a STEM college major or continuing to conduct research. I developed data displays organized by the individual

respondents, by the identity components of Holland et al. (1998), and by program design. Program design constructs were identified as components of the design that seemed to be most salient to the participants, based on their interview responses. Through this initial process, the team generated working program area categories to examine more closely in our analysis of youth interviews. I then refined these initial categories in light of our coding and research team discussions. Further, the team used online literature, such as program websites, and other published materials, including journal articles, to ground our understanding of each program.

### **Doing STEM in the Science Museum Internship Programs**

Study respondents named a number of roles and responsibilities in the internship programs that shaped their participation and identity work in STEM:

- Being teachers on the museum floor and becoming experts both in the content of their exhibits and in delivering that content
- Engaging in ongoing learning with support from peers and mentors
- Contributing to a science community and working toward common goals

### ***Becoming Science Experts and Artful Educators***

The most prominent activity respondents described in their interviews was teaching the public in demonstrations or exhibitions on the museum floor. Interns were assigned exhibits for which they were responsible to deliver content and engage museum patrons in. For example, Gina (a pseudonym, like all participant names), an intern at City Science, described the demonstrations she conducted: "The flight demonstration is about the science concept behind how things fly. Then air demonstration is about air pressure and how that affects us. The chemistry demonstration just teaches audiences about atoms and molecules." The demonstrations used a variety of activities to show everyday examples of the focal concept.

Almost all respondents described feeling "intimidated," "fearful," or "shy" when they first led demonstrations. However, they also described a process of becoming experts both in the science content and in the skill of delivering the content. For example, Raul, an intern at City Science, said:

[When I first started] I would just ask [the public]

yes or no questions, and it wouldn't really require much thinking [on the part of the patrons]. Now I ask them, "Oh, so what do you see? What do you think is happening?" Questions that are more open-ended.... For the chemistry demonstration, I don't even know what the script says. I adapted it. I know what to talk about, and I know how to say it [so the audience] would understand it, so I just use my information that I know.

Similarly, Emily, an intern at Coastal Science, stated:

[When I first started] I didn't know all the exhibit contents in depth, and I didn't know demonstrations in depth. It was a little daunting just going out there [on the museum floor] not knowing everything, because, if someone asked you a question, you have to try to learn it with them while explaining it to them. As you ... learn and practice, it became clear what you needed to do. You became more comfortable with everything else around you. [Now] any of the fear that I may have had when I first started, like worrying about ... if I know the material—that's really gone away, because I just feel comfortable. It's like I know what I'm talking about for sure now.

The mastery of science content and development of teaching skills shaped how participants came to understand STEM and themselves. Raul's and Emily's comments show that they had gained confidence in their science knowledge and in their craft as science educators and communicators. Raul grasped the importance of asking open-ended questions that required patrons to engage with the science content and their own process of inquiry. He was also confident enough in his grasp of the material that he could craft his own lesson.

Artfully engaging museum patrons was a point of pride for many respondents. For example, Jade of City Science said:

[My role as an intern is] making sure the visitors get an understanding of what's going on and also even that we have science concepts here. That's not necessarily what you can talk about, having a

great interaction with the visitors and make them feel like they're awesome, that they're learning, that they're happy.

### ***Being Learners and Asking for Help***

Interns' movement from being shy or unsure about science knowledge and teaching practice to being artful experts was supported by intentional scaffolding and mentorship designed into both science museum programs. Respondents referred to the design as the process of "leveling up." They began in entry-level positions; over time, as they demonstrated mastery at each level, they gained more responsibility, autonomy, and access to rich STEM practices. For example, at City Science, participants began as trainees, learning to engage museum visitors in exhibits. After completing a certain number of hours on the museum floor, they moved into more permanent internship roles. In those roles, they had opportunities to demonstrate their mastery of the content and presentation of specific exhibits, earning certification over time in numerous exhibits. From here, they could move into leadership roles, managing the staffing and training of exhibits and supporting newer interns as they joined the program, eventually serving as mentors.

Similarly, at Coastal Science, program participants conducted demonstrations on the museum floor as public educators. Once they advanced to Level 2, they began doing work behind the scenes, collaborating with other interns and conducting research within ongoing projects led by museum staff and senior mentors. Such work contributed to publishable manuscripts and presentations at national and international conferences. At Level 3, participants became part of the program's leadership council, in which they supported newer interns and helped decide how to grow and improve the program.

"Leveling up" certainly happened when participants accomplished milestones in the internship program. However, those accomplishments were fostered by a *culture* of learning and the practice of intentional mentorship. Raul described the modeling and practice that went into developing his skills as an explainer:

Almost all respondents described feeling "intimidated," "fearful," or "shy" when they first led demonstrations. However, they also described a process of becoming experts both in the science content and in the skill of delivering the content.



You can watch the demonstration first. You can watch another explainer do it, and you can practice it. [You] get pre-certified so that [program facilitators] know that you know the content. Then you go for certification, which is you just talk and you do it in front of a live audience, and then a trainer will watch you and evaluate you.... During the school year, we do get training every week.... They'll give us content training one week so that we understand the concepts behind the exhibit area.... If I have any questions ever, [the trainers are] always open for me to ask them how to explain the exhibit better, to explain the content a little more clearly if I didn't catch it the first time.

Because of the scaffolding Raul described, respondents often described themselves as “learners” and “students.” Stories from their more-expert peers led them to understand that they would not master a demonstration on their first try. They expected to need to learn more, so they did not experience a need for improvement as a marker of their ability or belonging in STEM.

Li of Coastal Science described the process of learning and coming to see herself as a thinker that she experienced during her time in the museum:

I ... really didn't expect all the knowledge that I'd accumulate, not just from my peers and all the other scientists that work here, but even on the floor. I teach people, but it's not just teaching experience. I've learned a lot, actually, from the visitors that come here from all over the world. They know things that I don't, and it's really, really cool to have conversations from them outside of the script.... Like, you get more answers, but that means more questions, and then I keep on thinking. I think “thinker” would adequately describe [how I see myself].

This learner stance showed up in the ways respondents talked about STEM disciplines and their interests in STEM beyond the museum. Raul, for example, described engineering as a process of trial and error:

[If] you build something and you don't like how it turned out, it doesn't do the things that you wanted it to do, you can analyze the situation. You can figure out what's wrong, and then you can try to

build on that part. Nothing is really a failure when you're doing design.

Jamal expressed the common view that doing science involves this continual learning-teaching process:

I do science in here. Not only behind the scenes, but also on the floor. Like I can say, on the floor I learn all the contents of a certain topic and then I share it to people, and then they're going to share it to everybody also.

### ***Being Members of a Science Community***

The interns' continual-learner stance was fostered by the deep sense of community and trust the museum programs cultivated. In this community, mistakes or shortcomings were treated not as setbacks, but as fodder for growth and learning. Li described an experience in which she felt supported after she fell short in fulfilling her role:

Everyone in the leadership council was assigned specific duties that they're in charge of, and usually multiple people were assigned the same duty to make sure it's covered. When I was very [new to the role] ... I was in charge of this one demonstration station, but I wasn't really on top of it, and it didn't help that I wasn't communicating with the older interns who were also in charge of it. I overcame [this problem] by communicating and actually talking and asking questions, asking them about how I should do the station.

Li learned that she could and should ask more senior peers how to make her demonstration—an integral part of the work her science museum community was producing—run smoothly. Overwhelmingly, interview respondents named the older interns and mentors as those who helped them when they encountered a challenge; from these encounters, they learned to ask for help.

Furthermore, Coastal Science participants engaged in ongoing research projects and presented their research findings at national and international conferences. Lorena, for example, described a project in which she and three other young women worked with a mentor researcher at the museum to investigate a fungus that was affecting

They expected to need to learn more, so they did not experience a need for improvement as a marker of their ability or belonging in STEM.

amphibians. The team collected samples, used software at a local university to run tests on their data, and then presented their work at conferences in China and the U.S. These experiences positioned the interns as contributing members of a broader science community. Both Coastal Science and City Science hosted STEM nights in which participants could listen to and meet with professionals in STEM careers. These connections expanded participants' ideas of STEM career options and broadened their community to include working professionals.

Taken together, the science museum experiences guided participants to a sense of belonging. Interviewees said they were contributing to meaningful work alongside others who were like them. Emily said:

I feel like a lot of people here are kind of similar. Because, I mean, there's already a binding force between us that we all work here, but sometimes it goes deeper. Like you find a lot of people have similar interests [to you].

### **Being a STEM Person in the Science Museum Programs**

Interviewees described unique constellations of activities in which they participated as science museum interns. Raul, for example, defined himself as a “teacher,” “designer,” and “not-yet engineer.” Jamal described himself in this way: “In this program they kind of put us in every position. We are teachers, but we are also students. Then we are explainers, we are researchers, we are—what's the word I'm looking for?” He went on to describe having engaged in a research project and then presented that work to others.

Jamal's reflections illuminate a key finding from this analysis: Ways of participating in STEM in the science museum programs were multifaceted; the programs thus welcomed a variety of ways of demonstrating expertise and being recognized as a STEM person. Participants taught the public, learned content and pedagogy, participated in research, managed demonstrations and projects, mentored others and received mentoring, supported others' work, and engaged with working professionals who could answer career questions. Doing STEM and being a science person took on various forms. Being able to communicate science ideas in accessible ways was just as important to study respondents as learning the information itself. For many, knowing the information did not matter if they could not communicate their ideas effectively to museum patrons or conference attendees.

Additionally, doing STEM work effectively required the help of others; it required practice and learning through trial and error. Interviewees' depictions run counter to how young people often engage with STEM in school, suggesting a profound change in how STEM work can be framed.

### **STEM Practices as “Tools to Think With”**

Through their work as science museum interns, participants in this study took on sophisticated, nuanced perspectives of STEM and of themselves as STEM-linked people. They developed research skills, science knowledge, and professional connections that would provide invaluable currency toward pursuing STEM interests. They also took on dispositions that are not always recognized favorably in STEM learning environments; they assumed a stance of not knowing, needing help, and requiring practice to develop their skills. They saw STEM as a collective endeavor and STEM knowledge as something to be shared broadly with others who, like them, wanted to learn. Particularly powerful for interview respondents was the link between teaching and being scientific. Being a STEM person meant supporting the learning of others.

These findings represent the experiences of a small sample of youth from two science museum programs. However, they suggest promising directions for practice and for further research. They highlight the need to design STEM learning environments to support multiple avenues for participation. Participants need opportunities to take on varying roles toward the kinds of knowledge building and design goals characteristic of STEM disciplines. Learning environments should celebrate learning, encourage questions, and promote trial-and-error experimentation. They should be designed to position STEM activities as collective pursuits, supported by individual contributions.

The goal is not for all participants to pursue STEM careers. Rather, reframing STEM can help participants to see science or engineering as, to use Emily's words, “tools to think with.” Well-designed STEM science museum programs can expand the ways in which participants imagine themselves taking up these tools and using them for their goals and futures.

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## References

- Adams, J. D., & Gupta, P. (2013). "I learn more here than I do in school. Honestly, I wouldn't lie about that." *International Journal of Critical Pedagogy*, 4(2), 87–104.
- Adams, J. D., Gupta, P., & Cotumaccio, A. (2014). Long-term participants: A museum program enhances girls' STEM interest, motivation, and persistence. *Afterschool Matters*, 20, 13–20.
- Allen, C. D., & Eisenhart, M. (2017). Fighting for desired versions of a future self: How young women of color negotiated STEM-related identities in the discursive landscape of educational opportunity. *Journal of the Learning Sciences*, 26(3), 407–436. <https://doi.org/10.1080/10508406.2017.1294985>
- Bell, P., Lewenstein, B., Shouse, A. W., & Feder, M. A. (2009). *Learning science in informal environments: People, places, and pursuits*. Washington, DC: National Research Council of the National Academies.
- Calabrese Barton, A., Kang, H., Tan, E., O'Neill, T. B., Bautista-Guerra, J., & Brecklin, C. (2012). Crafting a future in science: Tracing middle school girls' identity work over time and space. *American Educational Research Journal*, 50(1), 37–75. <https://doi.org/10.3102/0002831212458142>
- Calabrese Barton, A., Birmingham, D., Sato, T., Tan, E., & Calabrese Barton, S. (2013). Youth as community science experts in green energy technology. *Afterschool Matters*, 18, 25–32.
- Carlone, H., Haun-Frank, J., & Webb, A. (2011). Assessing equity beyond knowledge- and skills-based outcomes: A comparative ethnography of two fourth-grade reform-based science classrooms. *Journal of Research in Science Teaching*, 48(5), 459–485. <https://doi.org/10.1002/tea.20413>
- Carlone, H. B., Scott, C. M., & Lowder, C. (2014). Becoming (less) scientific: A longitudinal study of students' identity work from elementary to middle school science. *Journal of Research in Science Teaching*, 51(7), 836–869. <https://doi.org/10.1002/tea.21150>
- Dweck, C. S. (2013). *Self-theories: Their role in motivation, personality, and development*. London, UK: Psychology Press.
- Eisenhart, M., & Allen, C. D. (2016). Hollowed out: Meaning and authoring of high school math and science identities in the context of neoliberal reform. *Mind, Culture, and Activity*, 23(3), 188–198. <https://doi.org/10.1080/10749039.2016.1188962>
- Eisenhart, M., & Allen, C. D. (2020). Addressing underrepresentation of young women of color in engineering and technology through the lens of sociocultural practice theory. *Cultural Studies in Science Education*. <https://doi.org/10.1007/s11422-020-09976-6>
- Holland, D., Lachicotte, W. J., Skinner, D., & Cain, C. (1998). *Identity and agency in cultural worlds*. Cambridge, MA: Harvard University Press.
- Holland, D., & Lave, J. (2009). Social practice theory and the social production of persons. *Actio: An International Journal of Human Activity Theory*, 2, 1–15.
- Honey, M., Pearson, G., & Schweingruber, H. (Eds.). (2014). *STEM integration in K–12 education: Status, prospects, and an agenda for research*. Washington, DC: National Academies Press.
- Nasir, N. (2012). *Racialized identities: Race and achievement among African American youth*. Stanford, CA: Stanford University Press.
- Nasir, N., & Vakil, S. (2017). STEM-focused academies in urban schools: Tensions and possibilities. *Journal of the Learning Sciences*, 26(3), 376–406. <https://doi.org/10.1080/10508406.2017.1314215>
- National Science Foundation. (2018). *Women, minorities, and persons with disabilities in science and engineering*. <https://nces.nsf.gov/pubs/nsf19304/digest>
- Ong, M., Wright, C., Espinosa, L., & Orfield, G. (2011). Inside the double bind: A synthesis of empirical research on undergraduate and graduate women of color in science, technology, engineering, and mathematics. *Harvard Educational Review*, 81(2), 172–209.
- Penuel, W. R., Clark, T. L., & Bevan, B. (2016). Infrastructures to support equitable STEM learning across settings. *Afterschool Matters*, 24, 12–20.
- Riedinger, K., & Taylor, A. (2016). "I could see myself as a scientist": The potential of out-of-school time programs to influence girls' identities in science. *Afterschool Matters*, 23, 1–7.
- Yin, R. K. (2013). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.



# Digital Badges Forging Connections Between Informal and Higher Education

Wendy Martin, Jaime Gutierrez, and Maggie Muldoon

Many high-quality out-of-school-time (OST) programs enable youth from economically disadvantaged backgrounds to gain skills and knowledge in science, technology, engineering, art, and math (STEAM, Afterschool Alliance, 2015; National Research Council, 2011); engage in authentic practices that relate to their own interests; and connect with their peers and their own cultures (Bell et al., 2009; Ito et al., 2013).

However, too often structural inequalities in the resources available to low-income youth, such as a lack of guidance counselors who can help them develop college portfolios, mean that the talents they develop in OST programs may not be communicated to admissions officers when they apply to college (Archer et al., 2012, Calahan et al., 2019; Riegle-

Crumb et al., 2011). Since Black and Latinx youth are twice as likely to attend afterschool programming as their White counterparts (Afterschool Alliance, 2015), OST programs can address inequality of opportunities to some extent. However, to fully realize their potential to broaden STEAM participation in higher education and the workforce, OST STEAM programs need not only to help participants gain knowledge and skills, but also to give them tools for communicating their

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accomplishments to college and career gatekeepers (Fishman et al., 2018).

The past five to ten years have seen several initiatives that use digital badges as tangible representations of OST learning (Davis & Singh, 2015). These efforts have had a mixed track record; their impact is related to the quality of the program design as much as to the badges themselves (Abramovich et al., 2013; Hickey & Shenke, 2019). Research demonstrates that digital badges can be effective in documenting the skills and accomplishments of low-income youth when OST programs partner with the education system to ensure that the badges are given real value, such as providing course credits toward graduation and connecting OST initiatives with broadly recognized school programs (Rennie Center for Education Research & Policy, 2018). Digital badges can serve as alternative credentials for college applications only if those who evaluate the applications recognize the badging system (Fishman et al., 2018). This recognition requires negotiation, translation, and partnership among stakeholders in informal, formal, and higher education (Itow & Hickey, 2016).

Mouse, a national nonprofit that provides formal and informal creative technology programs, and Parsons School of Design in New York City established a badge endorsement partnership in a program called Investigating Digital Badges as Alternative Credentials to Broaden STEM Participation Among Underrepresented Youth. This digital badge system was designed to give young people language and evidence to demonstrate to higher education gatekeepers the value of what they learned in Mouse's Design League program. The project formalized procedures through which Parsons faculty co-created the badges and Parsons administrators endorsed them. This endorsement signals to other colleges that Design League meets Parsons's criteria for a high-quality digital design program, similar to a pre-college program. In the process, program developers learned what kinds of content and experience to include in Design League to help prepare young people to attend a college like Parsons.

### **The Design League Program**

Run by Mouse, Design League is a year-long OST program for high-school-age youth. In its curriculum, Design with Purpose, participants learn human-centered design in order to develop prototypes of assistive technology products for people with disabilities. The program is divided into two phases of learning.

In the first phase, Design Skills Foundations, participants learn the theory and practice of design thinking and the human-centered design process. Learners not only are introduced to the many careers that use design skills to create new technologies but also gain the language and knowledge they need to identify authentic opportunities for design and innovation in their own lives. This phase contextualizes the thoughtful work they will do for the rest of the year and encourages them to see themselves as part of a wider ecosystem of technology and design innovators.

The second phase is Design League Product Design. Learners participate in a human-centered design process from start to finish alongside mentors from academic and professional fields as well as near-peer portfolio mentors. Participants interview people with disabilities to identify their needs, learn question framing and brainstorming skills, and create multiple iterations of a technical product designed to improve the lives of others. They create wireframes and rapid prototypes of early iterations of ideas, solicit user feedback, incorporate new data into future iterations, and publicly pitch and market their products. They finish the program with a solid prototype of their final product, a digital design portfolio, five Parsons-endorsed badges, relationships with mentors, and a more refined idea of their future career prospects.

### **The Informal Education and Higher Education Partnership**

The development of the endorsement partnership between Mouse and Parsons School of Design can provide a model for other OST programs and higher education stakeholders. Mouse and Parsons participate in a number of collaboratives that focus on building a supportive STEAM ecosystem for underrepresented youth in New York City. Events hosted by the collaboratives bring stakeholders together to discuss their communities' needs, challenges, and opportunities. Interactions at these events between Mouse program developers and Parsons faculty led to the realization that they shared many values around equity, inclusion, and social justice; transformative youth development models; community-based digital design; and increasing diversity in higher education and in STEAM careers.

This recognition of shared values helped to foster trusting relationships among the individuals from the two organizations. They started to look for ways to collaborate, such as applying for project grants

and presenting together at conferences. After some successful joint work, they decided to tackle a complex challenge together. Parsons was interested in increasing the diversity of its student body and recruiting more students from its local community. The Design League program represented a pool of young people from disadvantaged backgrounds who were interested in, and gaining experience with, creative digital design. For Mouse program developers, building a more formal relationship with Parsons would familiarize participants with a higher education opportunity located in their own community and would offer them recognition of their Design League learning from a highly respected institution.

The two organizations decided that co-creating a digital badge system for Design League would be mutually beneficial. Having helped to create the badges, Parsons faculty would know that the badges represented skills and experiences aligned with their requirements. Meanwhile, Mouse educators would know that their program had been vetted by an organization that represented the next step on a digital design career pathway. The two organizations' history of collaboration and trust enabled members to bring in higher-level decision makers who could make change happen, including the director of curriculum development at Mouse and a dean at Parsons. Mouse program developers and Parsons faculty and administrators reviewed the Design with Purpose curriculum to identify which learning activities aligned with Parsons' introductory course in human-centered design and which ones had to be revised. The partners designed the digital badges to represent specific skills in digital design that Parsons faculty have endorsed as being consistent with the skills they seek in applicants. These badges are now considered "plus factors" on applications to Parsons. (A "plus factor" is something a college decides should increase an applicant's chance of being accepted, such as being an athlete, a child of alumni, or a first-generation college student.) In addition, the formal endorsement by a highly respected school of design increases the likelihood that the Design League experiences and

... the project team is now in discussions with a highly competitive engineering college with the aim of having its faculty endorse the Design League badge system. Besides adding a new partner, this endorsement would demonstrate to other engineering colleges the value of Design League skills and content.

skills the badges represent will be valued by other colleges and universities offering digital design and technology majors.

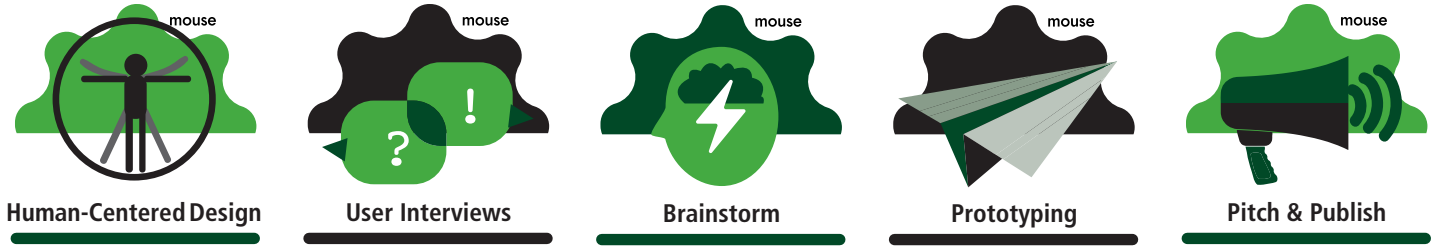
As a part of this project, Mouse and Parsons representatives met with admissions and faculty representatives from other higher education institutions to share their partnership-building experience and endorsement process. They did so partly to make these colleges aware of the badge system but also to recruit them to endorse the badges. By the end of the project, the team had brought on a new partner, Hostos Community College in the Bronx, which offers a number of digital media degrees. More than considering the badges as plus factors, Hostos is in the process of creating an agreement to grant course credit to students who earn Design League badges, giving the badges real-world value for participants who enter Hostos. Hostos and Parsons are also in discussions to establish a pathway in which Design League participants can attend Hostos for one year, split courses between Hostos and Parsons in years 2 and 3, and attend Parsons for the fourth year, so that they have a less expensive means to earn a Parsons degree.

In addition, the project team is now in discussions with a highly competitive engineering college with the aim of having its faculty endorse the Design League badge system. Besides adding a new partner, this endorsement would demonstrate to other engineering colleges the value of Design League skills and content. Design League participants also will benefit, as many want to enter engineering rather than digital design programs after high school. The engineering college will benefit because Design League alumni will diversify its student body.

## The Badge System

Mouse designs and publishes OST courses on its online learning platform, Mouse Create, including Design League's core curriculum Design with Purpose. Each course awards competency-focused digital badges. Informal educators facilitating this curriculum use the platform to build playlists of projects, each of which is associated with specific digital badges. The badges,

**Figure 1. Design League Badges**



which are displayed and accessed online, are graphic representations of competencies earned through specific criteria, linked to evidence or portfolio data that educators can review. Figure 1 shows the five badges participants can earn in Design League.

Participants earn badges by creating a portfolio of project work associated with the badge. For example, young people can earn a Prototyping badge by showing evidence of having made a paper prototype, tested it, and gone through three increasingly sophisticated iterations. Their facilitators review submitted work on the digital platform, leaving feedback in each submission's discussion area. The young designers receive an email notifying them that their badge is available on their platform for them to share publicly on social networks or in college applications.

In the current program, two near-peer portfolio mentors—undergraduate students in a digital design field—work with Design League participants to help them build their digital badge portfolios to meet college admissions requirements. These mentors also give feedback on the creation process, help the young designers strengthen their documentation, and share their own stories of pursuing a career in digital design.

### **Data Collection and Analysis**

To understand what participants were gaining from their experience in Design League—and particularly what they gained from earning digital badges—we collected data from program participants using pre- and post-participation surveys and interviews.

The survey we used was the STEM Career Interest Survey (STEM-CIS; Kier et al., 2014), which is based on the social cognitive career theory framework (Lent et al., 1994). The STEM-CIS asks respondents about their interest in the four STEM content areas: science, technology, engineering, and math. The set of items about each content area is based on six constructs of social cognitive career theory: self-efficacy, personal

goal, outcome expectation, interest in the content area, contextual support, and personal input. To these questions, we added our own questions about respondents' college intentions and career interests.

We surveyed all participants in two Design League cohorts, a total of 39 respondents. Of those 39, seven girls and 10 boys filled out both the pre- and post-participation surveys; 10 were first-year Design League students and seven were returning students.

To analyze the STEM-CIS data, we broke down differences between the pre- and post-participation surveys in the four content areas and for each of the six constructs within those content areas. The analysis did not show any significant change in Design League participants' STEM-CIS scores. We think this result can be explained by noting that young people self-select to participate in Design League, so that their STEM interest starts high and finishes high.

However, differences in the pre- and post-participation results do suggest that the project had a positive impact on participants' college intentions and career interests. At post-test, all 17 respondents expressed interest in at least one STEAM career, as compared to 15 at the pre-test. Nine respondents expressed interest in three different kinds of STEAM careers, compared to only three respondents at the pre-test.

We also conducted interviews of about 25 minutes each with Design League participants three times per year for two years of program implementation. We interviewed ten students each year. Six were interviewed in both years; for these, we looked for evidence of growth. The interview protocols were adapted from Zeldin et al. (2008) and from Usher (2009). We also asked questions about why respondents joined Design League and about how they viewed badges and portfolios. We coded interview transcripts based on Bandura's (1997) four categories of self-efficacy: mastery, vicarious learning, social persuasion, and physiological states.

## Credibility Through Endorsement

This outline of our findings uses youth voices from the interviews to illustrate the impact of the program and how the badge system helped to inform the way participants spoke about what they had learned.

### *Speaking the Language of College Admissions*

One value of the digital badge system was that it taught Design League participants to use terminology and examples that the gatekeepers of higher education would recognize and value. The participation of Parsons as endorsement partner was crucial, as the school represents the next step in a career trajectory for youth who are interested in digital design. Because faculty members understand what Parsons expects of students applying to its design programs, their input helped the OST program guide participants through activities that represent key steps of the human-centered design process. From building empathy for users through interviews to brainstorming solutions to problems, creating prototypes of designs, and pitching ideas, participants named these steps as they worked on badges. Earning a badge made explicit for participants what the steps are and what work goes into each step. In this way, participants gained not only the valuable experience of making a project, but also the vocabulary they would need to describe that experience to colleges and employers.

Knowing how to use professional language to talk about their work is empowering for young people. In our interviews, participants made it clear that the digital badges signified their ability to accomplish recognized design processes. When asked, “What do the badges mean to you?” interviewees spoke about having a way to show they had completed a piece of work. For example, one said, “Badges? They mean this is the work I’ve done. So it kind of represents a milestone.” Another stated, “The badges show I achieved what I have been doing the whole time.... The badges show all the processes I’ve been doing.” A third described how the badges represent mastery of specific skills or content: “The badges mean that you’re experienced with that topic that the badge says.... You actually know something.”

One value of the digital badge system was that it taught Design League participants to use terminology and examples that the gatekeepers of higher education would recognize and value.

Having badges aligned with specific components of the human-centered design process meant that the Design League participants developed the confidence to talk about these processes and to claim expertise. One interview respondent gave the example of earning the User Interview badge: “We’re currently interviewing people from [an organization for disabled people], and not everywhere do kids like us really know how to interview people. Usually interviewers are adults. Not many kids know how to do that at my age, fifteen.” Another said:

You could interpret [badges] as “I have put at least a couple of hours into mastering that particular idea or concept.” ... I know, for example, how to brainstorm, how to develop good research questions. I have experience with that.

The badges also represented personal growth for some participants. One stated, “For me, the badges mean that there’s things that I can do that I didn’t really know I could do.” When asked whether one badge was more important than the others, Design League participants did not agree on any one. Rather, they valued the badges depending on what they felt they got out of the badges’ activities. For example, one respondent chose the Pitch and Publish badge as most important “because I’m a shy speaker. I don’t really like to talk to a crowd, to people I don’t really know.” Another participant

said that her User Interview badge represented not only the activities she completed, but also a personal accomplishment in an area she perceived as a weakness: “[The badge] shows me that I’ve been obtaining a greater level of knowledge of interviewing people, because I was always bad interviewing people.” A third participant described how learning about Prototyping was beneficial for him:

The idea of prototyping and coming up with ideas has been really helpful for me, as it made me focus more on being open-minded and not so set on my original ideas.... That mentality of being open to change has been tremendously helpful in my school life and outside of school.

Other respondents, in contrast, believed that all the badges had similar value because they built on each



other. One participant stated, “I believe all the badges are equally important because ... all the badges are actually connected.... That’s all how you progress.”

The badges helped participants learn a highly specialized professional vocabulary for describing the work they were doing in Design League. Because they earned badges by showing examples of work representing the various skills, participants had to reflect on and understand the skills to make the case that the examples they selected were appropriate representations. This ability to communicate their knowledge and mastery of the design process, using the vocabulary of Parsons faculty, gives these youth tools to show the value of their OST experiences to higher education gatekeepers.

### **Digital Badges Can Clarify Pathways**

Survey and interview results suggest that work on Design League badges led to greater interest in and understanding of STEAM careers. As noted above, our survey revealed that Design League participants started the program already highly interested in STEAM content areas, especially technology. The program did not change their level of interest, but it provided a place where participants could explore and express those interests. What did change was participants’ interest in the range of STEAM careers, their understanding of what careers in digital design and technology involve, and their knowledge of what they need to do to be successful in those careers.

The experiences of two participants we interviewed reflect this evolving understanding. An interviewee we’ll call “Andre” participated in the Design League program for two years. From the beginning, he expressed a desire to go into computer engineering. However, during his participation, he changed his understanding of what an actual career in computer engineering might entail. When asked at the beginning of his first year in the program what he did that was related to technology and design, he talked about creating websites, learning HTML, and doing research on YouTube. At the beginning of the next year, in response to the same question, he said:

What did change was participants’ interest in the range of STEAM careers, their understanding of what careers in digital design and technology involve, and their knowledge of what they need to do to be successful in those careers.

There are electronics at my house sometimes I like to repurpose so I can help my family out or make things easier. For example, I had this old computer that no one used, so I turned it into this little tablet that I left in the living room, and it would display things like the weather for the day and reminders on a schedule—so something that would make my parents’ lives a little easier.

At the end of his second year in the program, Andre provided a detailed description of how he engaged in the design process, naming two of the badges (Human-Centered Design and User Interviews) that he earned along the way.

For Human-Centered Design, I learned a lot about creating products that are specific to someone’s needs. Human-centered design means ... designing a product centered around human life. So regarding our individual project, with the Click Pot, [the user we interviewed] was our focus, and our design was centered around her. We wanted to make it easier for her to move pots around the kitchen. So we

went beyond the surface, and we really analyzed what she does day-to-day with her habits in the kitchen with cooking. The user interviews is how we were able to find one of the issues that she faced in her life, and then tackle that issue.

The second interviewee, “Valerie,” stated at the beginning of her first year in the program that she wanted to do “something in computers and design.” At the beginning of her second year, she had decided that she wanted to go into “communication design.” By the end of that second year, she had been accepted into a media arts program at a local college. She outlined what she had learned and how she had grown over her two years in Design League through her descriptions of two badges she earned. Of the Prototyping badge, she said:

The Prototyping badge means that I have experience trying a new thing and seeing if it works or not. If it doesn’t, I just find another way that could improve it from the prototype I made and get feedback from my group or the person that

we interviewed. I didn't know about prototyping before Design League because before Design League I did not have any design skills or skills that led to creating things.

In describing the Pitch and Publish badge, Valerie said:

I'm a shy person even now, but I've improved a lot since starting Design League. I get to be less afraid of talking and also less nervous about presenting to class.... It's stepping away from your comfort zone, being able to not be shy.

During two years of participating in Design League and earning digital badges associated with important design skills, these two participants transformed from having a general interest in design and computers to having far more fleshed-out conceptions of what a digital design career involves. They also had developed confidence in their ability to do that kind of work.

### ***The Perceived Value of Endorsed Badges***

Earning digital badges helped Design League participants learn to describe their work using professional design terminology. Some began to see where they fit on STEAM career trajectories. However, some participants were not clear about the practical use of the digital badges as credentials outside of the program or whether the badges would be valuable in their college applications. One interviewee said that badges could serve as evidence of his abilities that he could use in college applications:

I believe [badges] are important to me because it's a process that I learned, and these badges can be used as part of my portfolio to show to colleges that I have the skills to do things like this, and I'm proud of that.

Another participant also thought that his badges would reflect positively in a college application, saying that the badges "show what you're doing to colleges. So they can see what kind of work you've done and that you've got experience outside of school."

However, other Design League participants were more skeptical. One interview respondent who

reported that badges signified the hard work she had done also noted their limited value unless colleges understood what they were and accepted them. "[Badges] are pretty important, but I wish they were more accepted by other places like colleges and stuff. That increases the importance, definitely."

Some participants suggested that, even if the actual badges could not be shared in a college application, going through the Design League activities and the process of earning badges meant that they could write about the design process in their college essays and talk about the process in their interviews for college, internships, or jobs. One said:

I could definitely imagine using the [design] terms, especially because they precisely describe what we have been doing in Design League. But as for the badges, I just wish I could mention them. I just wish that they were more recognized by other colleges and institutes, because I don't think many of the major colleges really recognize these badges yet, but I could definitely use them to help describe some of the work that I've been doing in [Design League].

Two participants mentioned that having such well-known institutions as Mouse and Parsons issue and endorse the badges enhanced their value. One said:

I think that [colleges] don't necessarily care about the badge but more about the backing that the badge has ... and then it's also certified by different parties. So it's more about who speaks behind it than the actual badge.

Another youth agreed that, for the badge system to work as intended, the issuing, endorsing, and accepting organizations must be perceived as mutually credible.

The badges can help show that you've mastered the skills. I guess they're more symbols of mastery, so rather than having to go through individual images or going through all the series of steps you've taken, badges can be a short cut ... and that highly depends on its merit and its credibility. So if it's a well-accepted badge, then it can definitely be used in lieu of showing the step-by-step process of your understanding.

I think that [colleges] don't necessarily care about the badge but more about the backing that the badge has ... and then it's also certified by different parties. So it's more about who speaks behind it than the actual badge.

These participants understood the potential of the digital badging system. Many appreciated the way the badges gave them shorthand to encapsulate the range of their experiences and skills. However, it was difficult for them to see how the badges themselves had much currency beyond the program, since they are not formally accepted by colleges other than Parsons and Hostos.

## Next Steps

By partnering with Parsons to create an endorsement relationship for its digital badge system, Mouse is attempting to forge a connection between Design League participants and the kind of higher education institutions they might want to attend. However, that is only the first step of a longer-term process that needs to take place for this OST program and others like it to establish alternative methods for credentialing the valuable experiences they provide for young people.

One way Mouse can address the credibility issue interviewees raised is to reframe how it conceptualizes the badges and presents them to participants. It could, for example, emphasize the way the badges develop skills and the vocabulary to describe those skills, presenting the badges as talking points participants can use to pitch their skills to college and career gatekeepers. However, the hard work should not only be placed on the young people. College and career gatekeepers should also make an effort to understand the activities in which youth participate and the skills and abilities they gain. If the burden is placed solely on the young people, who are already disadvantaged, the inequities Design League was created to address are perpetuated.

A more ambitious goal is to establish a larger network of endorsement partners, eventually reaching enough highly regarded art and design institutions that the badges become widely recognized within a specific higher education ecosystem, in this case, New York City.

For credentialing alternatives like badge systems for OST accomplishments to address inequalities in higher education admissions, endorsement partnerships must become commonplace. Although creating these partnerships has its challenges, the Design League project can provide a model for how OST organizations can work with higher education partners to prepare participants to demonstrate their talents and take the next step on their chosen college and career pathways.

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## References

- Abramovich, S., Schunn, C., & Higashi, R. M. (2013). Are badges useful in education? It depends upon the type of badge and expertise of learner. *Educational Technology Research and Development*, 61(2), 217–232.
- Afterschool Alliance. (2015). *Full STEM ahead: Afterschool programs step up as key partners in STEM education*. <http://afterschoolalliance.org/AA3PM/STEM.pdf>
- Archer, L., DeWitt, J., Osborne, J., Dillon, J., Willis, B., & Wong, B. (2012). Science aspirations, capital, and family habitus: How families shape children's engagement and identification with science. *American Educational Research Journal*, 49(5), 881–908.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Bell, P., Lewenstein, B., Shouse, A. W., & Feder, M. A. (2009). *Learning science in informal environments: People, places, and pursuits*. National Academies Press.
- Cahalan, M., Perna, L. W., Yamashita, M., Wright-Kim, J., & Jiang, N. (2019). *2019 indicators of higher education equity in the United States: Historical trend report*. Pell Institute for the Study of Opportunity in Higher Education, Council for Opportunity in Education, and Alliance for Higher Education and Democracy of the University of Pennsylvania. [http://pellinstitute.org/downloads/publications-Indicators\\_of\\_Higher\\_Education\\_Equity\\_in\\_the\\_US\\_2019\\_Historical\\_Trend\\_Report.pdf](http://pellinstitute.org/downloads/publications-Indicators_of_Higher_Education_Equity_in_the_US_2019_Historical_Trend_Report.pdf)
- Davis, K., & Singh, S. (2015). Digital badges in afterschool learning: Documenting the perspectives and experiences of students and educators. *Computers & Education*, 88, 72–83.
- Fishman, B., Teasley, S., & Cederquist, S. (2018). Micro-credentials as evidence of college readiness: Report of an NSF workshop. <https://deepblue.lib.umich.edu/handle/2027.42/143851>
- Hickey, D., & Shenke, K. (2019). Open digital badges and reward structures. In K. Rennigher & S. Hidi, *The Cambridge handbook of motivation and learning* (pp. 209–237). Cambridge University Press. <https://doi.org/10.1017/9781316823279.011>

Ito, M., Gutiérrez, K., Livingstone, S., Penuel, W., Rhodes, J., Salen, K., Schor, J., Sefton-Green, J., & Watkins, S. C. (2013). *Connected learning: An agenda for research and design*. Digital Media and Learning Research Hub.

Itow, R. C., & Hickey, D. (2016). When digital badges work: It's not about the badges, it's about learning ecosystems. In D. Ifenthaler, N. Bellin-Mularski, & D-K. Mah (Eds.), *Foundation of digital badges and micro-credentials: Demonstrating and recognizing knowledge and competencies* (pp. 1–22). Springer. [https://doi.org/10.1007/978-3-319-15425-1\\_22](https://doi.org/10.1007/978-3-319-15425-1_22)

Kier, M. W., Blanchard, M. R., Osborne, J. W., & Albert, J. L. (2014). The development of the STEM Career Interest Survey (STEM-CIS). *Research in Science Education*, 44(3), 461–481.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice and performance. *Journal of Vocational Behavior*, 45(1), 79–122.

National Research Council. (2011). *Successful K–12 STEM education: Identifying effective approaches in science, technology, engineering, and mathematics*. National Academies Press. <https://doi.org/10.17226/13158>

Rennie Center for Education Research & Policy. (2019). *Expanding the boundaries of education: Two cities' efforts to credential real-world skills through digital badges*. [https://www.renniecenter.org/sites/default/files/2019-02/Expanding%20the%20Boundries%20of%20Education%20Jan%202019\\_0.pdf](https://www.renniecenter.org/sites/default/files/2019-02/Expanding%20the%20Boundries%20of%20Education%20Jan%202019_0.pdf)

Riegle-Crumb, C., Moore, C., & Ramos, A. I. (2011). Who wants to have a career in science or math? Exploring adolescent future aspirations by gender and race/ethnicity. *Science Education* 95, 458–476.

Usher, E. L. (2009). Sources of middle school students' self-efficacy in mathematics: A qualitative investigation. *American Education Research Journal*, 46(1), 275–314. <https://doi.org/10.3102/0002831208324517>

Zeldin, A. L., Britner, S. L., & Pajares, F. (2008). A comparative study of the self-efficacy beliefs of successful men and women in mathematics, science, and technology careers. *Journal of Research in Science Teaching*, 45(9), 1036–1058. <https://doi.org/10.1002/tea.20195>



# Balancing Acts

## Managing the Tensions Inherent in Long-Term Youth-Led Projects

Suzanne Eyerman and Sarah Hug

*The girls were really invested in the long-term projects; they liked working on it. It was hard that, for some of them, they didn't get finished. It was hard, but you work on growth mindset, and you work on helping them thinking about [the community impact project] as a prototype.*

These words come from a staff member who works with a girls' engineering afterschool program run by Techbridge Girls, a U.S. nonprofit. This staff interview was part of a larger study of the organization's expansion to provide engineering education to more girls. Techbridge Girls seeks to inspire girls to discover their passion for science, technology, engineering, and mathematics (STEM), working to serve girls of color and girls in lower-income neighborhoods. Techbridge Girls has created and implemented STEM curricula in out-of-school settings for almost 20 years, funded by National Science Foundation (NSF) grants and corporate giving.

For many years, Techbridge Girls focused its weekly sessions on stand-alone lessons that asked participants to develop products that fulfilled specific criteria, such as “create the bounciest rubber ball,” “build the tallest paper tower,” or “design the largest bubbles.” These activities typically lasted one or two sessions.

Recently, the organization became eager to expose participants to more comprehensive, and therefore lengthier, design experiences while also wanting to

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keep the projects manageable for participants, program coordinators, and teachers. How could a larger design experience be implemented so that it would still fit into the two-hour weekly timeframe, the supply budget, and the program's staffing restrictions? That is, how would Techbridge Girls manage the tensions inherent in implementing long-term projects with adolescents?

This article explores how Techbridge Girls worked to stimulate long-term engagement and create opportunities for youth empowerment in semester-long community impact projects. It shows how staff and organization leaders used these long-term design projects to give participants opportunities for problem solving, critical thinking, and youth agency.

## Project Work and Design Experiences

Long-term, open-ended projects are beneficial for youth (Grant, 2002; Hauer & Daniels, 2008), but engaging young people in such projects can be difficult. Long-term design experiences are engaging because they involve physical manipulation of materials and require cognitive work that can be explored iteratively, with time for regular reflection and redesign. Furthermore, long-term projects that require participants to work in groups or pairs can stimulate engagement by connecting participants with their peers (Dawes & Larson, 2011).

Opportunities for empowerment are tied into design experiences through the choices that occur along the way, which give participants the agency, or power, to make decisions. Choice can also be emphasized in a long-term design project as a way to make the curriculum more relevant when participants can see the connections between engineering and their real-world lives (Mosatche et al., 2013).

## Research Context

Techbridge Girls, which has existed for almost 20 years, expanded geographically and tripled in size from 2014 to 2019 through a NSF development grant. For the expansion, the organization chose ethnically diverse cities and underresourced neighborhoods where residents are typically underserved in STEM programming.

The major goal of Techbridge Girls is to help

girls see STEM careers as a possibility. To accomplish this goal, the organization helps girls learn technical skills in STEM fields, gauge their interest in a variety of areas, and interact up close with professionals in STEM workplaces. Each middle school afterschool site is hosted by the participants' school and staffed by a Techbridge Girls program coordinator and a teacher from the school. Program coordinators usually have expertise in youth development, teaching, engineering, social work, social activism, or some combination of these areas. Techbridge Girls works to match staff members with teachers whose skills complement each other. For example, a staff member with social work expertise might be paired with a STEM teacher and a staff member with STEM knowledge with a literacy teacher.

## Participants

Many of the middle school girls who were part of this analysis had become familiar with us as members of the research team during the six years of the larger study of which this analysis is a part. We worked with Techbridge Girls as social science researchers and as the education research team for the NSF expansion grant.

Familiarity with the participants, the staffs of the schools, the Techbridge Girls staff, and the regular routines of the afterschool program enabled us to understand and contextualize the girls' projects and explanations for this analysis.

Afterschool program staff were also part of this research study. One of us, Suzanne Eyerman, joined biweekly virtual staff meetings, which helped staff organize and synchronize their

work across sites and regions. Staff members served as invaluable insiders who provided member checks (Creswell, 2014)—that is, they verified whether they found our data analysis to be valid and accurate.

## Methods

As participant-observers, we observed program sessions in which girls worked on their projects. We interviewed teachers and program leaders annually, with informal interviews occurring with each site visit. Each year we also interviewed curriculum developers and regional leaders and held focus groups with

Long-term design experiences are engaging because they involve physical manipulation of materials and require cognitive work that can be explored iteratively, with time for regular reflection and redesign.

participants. Interview and focus group protocols emphasized the community impact projects that are the subject of this article. Though we collected data for all five years of the initiative from all sites, the analysis in this article relies on data from the 2016–2017 and 2017–2018 school years and on data from six sites.

### Managing Tensions in Long-Term Projects

We chose the analytical tool of tensions, or contradictions (Engeström, 2001), to ground this case study of the implementation of community impact projects in the structured afterschool learning environments developed by Techbridge Girls. Contradictions “manifest themselves as problems, ruptures, breakdowns, clashes or as disturbances, which interrupt the flow of work” (Ekundayo et al., 2012, p. 2). Disruptive factors are considered valuable for empirical work, as they often are sites for change or renegotiation of practice (Engeström, 2001).

As we reviewed our data, we noticed substantial curricular negotiation at play in the sites we studied. In implementing the written curriculum, the adults involved had to see to what extent it would work in this time, in this place, with these girls. At first, the negotiation would take place in the mind of the person implementing the curriculum. But then negotiations had to happen between the Techbridge program coordinator and the teacher at a site, between the site-based program coordinators and their supervisor, and among the program coordinators. For the program expansion grant, the goal was to implement the same curriculum across sites. However, no one site implementation exactly replicated the written curriculum.

We began to focus on this and other areas of negotiation and tension, which were managed by the adults with formative feedback from the participants. As tensions emerged in the data, we interrogated the products of our analysis, such as memos and research briefs, to correlate data sources, data types, and data analysts (Patton, 1999). Our study of community impact projects found four tensions, together with the ways in which program stakeholders managed those tensions.

### Tension Between Impact and Intent

*Two middle school girls who are new to the program observe a pair of girls working with specialized equipment in a science lab. One girl, holding an umbrella out to her side, points to some modifications she and her partner made to create the prototype of a solution to a problem they identified—getting around safely in the dark, rainy late afternoons in the Pacific Northwest. “We walk home alone at night, and sometimes it is scary, especially in the winter. See, we added these LEDs here,” she points to the lights attached to the outside of the umbrella, “and we are going to add a switch. We just have to solder it.” While the visitors look on, the girl turns to her partner and grins, “I can’t wait to use this!”*

As the teachers and program coordinators implemented the community impact project curriculum, they found that some of the curriculum functioned as intended, while other parts required reimagining. When Techbridge Girls set out to empower participants to create long-term engineering design projects that would impact their communities, staff members worked to work to align their conceptions of *community* and *impact* with the organization’s framework.

The curriculum described in this article is the second iteration. During the first year of community impact projects, each site partnered with an outside organization to serve as a

resource for the girls’ work. The concern was that the partner organizations identified the problems, so that the girls were guided toward solutions. The positive youth development perspective of Techbridge Girls required the community impact projects to be girl-directed. For the second iteration, then, the afterschool program sites did not partner with other organizations. Instead, they asked participants to define their target communities. Different sites, and even different groups of girls, operationalized *community* in different ways.

Defining *community* and *impact* in ways that are true to the intent of the program can be challenging. When adults define *community*, the outcome is often grand. When young people define it, the outcome may be smaller, but the definition is more likely to be

[W]e noticed substantial curricular negotiation at play in the sites we studied. In implementing the written curriculum, the adults involved had to see to what extent it would work in this time, in this place, with these girls.

meaningful to them (Calabrese Barton & Tan, 2009). What it means to have an impact on one's community depends in large part on how that community is defined. While adults may define *community* as something like "all the people who live in this ZIP code," young people may view *community* as "families who own ferrets," as was the case with the group who designed one community impact project. Giving participants ownership of their community impact projects decreased the scale of the projects because the girls tended to have small-scale definitions of *community*. Thus, Techbridge Girls chose to value girls' engagement and empowerment over impact on a larger segment of the outside community. Table 1 shows examples of problems girls identified to solve.

Valuing youth agency, however, does not mean that adult facilitators take a completely hands-off role. Program coordinators and teachers often intervened in ways that both respected participants' choices and helped them toward successful projects. For example, the participants who addressed recycling initially wanted to overhaul the recycling program for an entire section of the city. The adults encouraged them to create just two prototype recycling containers for blocks adjacent to their school. Later they could expand to provide more containers in their neighborhoods and eventually throughout the area. In another example, the water bottle group was originally two groups: One wanted to create a "smart" water bottle that provided hydration reminders; the other wanted to create a satchel, with a different digital component, that could also hold a water bottle. Their teacher helped the two groups to come together to work on one joint project.

### ***Tension Between Authentic Experiences and Useful Tools***

Program coordinators and teachers were eager to offer authentic experiences of the engineering design process to program participants. Even within the lengthier 12-week timeframe, however, the adults were challenged to situate girls as engineers who used real engineering tools and methods while simultaneously chunking the projects into weekly program sessions. To do so, they had to reconfigure some tools and methods, reimagining the ways engineers work to fit the program's allotted time, space, and resources.

An example is one program coordinator's decision to change a common engineering tool, the engineer's notebook. According to the curriculum, participants were supposed to write in notebooks at the end of each weekly program session to record and reflect on their progress. Reflection and planning are important parts of the design experience because they help students develop critical thinking necessary for problem solving (Bratman, 2000; Epstein, 2003; National Research Council, 2010). Facilitators thus wanted to include reflection as an integrated part of the design experience. However, they found that the girls wanted to continue working as long as possible rather than stopping near the end to take notes. One program coordinator addressed this challenge by reconfiguring the engineering notebooks into end-of-day sticky notes. A few minutes before the end of each session, each young engineer got two three-inch by three-inch blank sticky notes: one for what challenged her today and the other for her plan for next week. The girls could write only a sentence or

**Table 1. Participant-Identified Problems and Design Solutions**

<b>PROBLEM</b>	<b>SOLUTION</b>
Responding appropriately to Islamophobia at school	App with information about Islam and being Muslim
Needing to recycle items while out on foot	Outdoor recycling container that automatically sorts materials such as paper from glass
Walking home on dark and rainy evenings	Umbrella with lights to increase the visibility of the carrier
Pets becoming bored alone at home	"Fabulous Home for Ferrets" enclosure with stimulating toys and activities
Staying hydrated and organized at school	Reusable water bottle with a digital clock and a cloth pocket for writing utensils and other small items
Children walking home without supervision	Bracelet with GPS to send children's location to their parents



two on the small sheets, so their engineering work was less interrupted than it would have been by notebook entries. Furthermore, the program coordinator found that the girls did consult their notes the following week to help them return to their project work. The notes could be scanned into an electronic document or even glued into a physical notebook to create one repository for each girl's writings.

### ***Tension Between Completed Projects and Meaningful Ideas***

*The Techbridge Girls staff member gathered the participants near the front of the room after their icebreaker activity. "Next Thursday is our Community Night. It is gonna be a fun thing. You will bring your family, there is going to be music, and we will have a raffle. When you think about presenting this prototype, you are going to need to communicate quickly to family and community members. Talk about your group's process. Why did you pick the community you chose? Why did you choose to address the problem you picked? Remember, each group will have a prototype and a poster describing it. Think about telling your audience, if you had more time, or if you had more money for materials, what would you have done?"*

While girls were designing their projects, they were encouraged to keep in mind their constraints, including limited budgets and timeframes. Constraints are part of any real-world engineering project. However, adult facilitators also wanted the participants to create projects that fulfilled a need in their community. As the work progressed, the adults realized that the groups whose projects aimed to meet large community needs were unlikely to complete their projects by the end of the term.

This tension between authentic design experiences and finished projects required adults to adjust their expectations and then help participants do the same. They did so by reconfiguring what counted as "finished." A physical project, for example, might have some working components but not be fully functional. A website or app might have only a few complete pages. As the staff member quoted at the begin-

**This tension between authentic design experiences and finished projects required adults to adjust their expectations and then help participants do the same. They did so by reconfiguring what counted as "finished."**

ning of this article said, "You work on helping them thinking about it as a prototype."

For example, one group of girls, all of whom were Muslim, chose the goal of educating their community about Islam to combat Islamophobia; their project was an app. In describing the challenge, a participant said, "[Classmates] ask me about Ramadan and say, 'What, you don't eat for a whole month?' Of course not! I would die!" In the course of working on this project, group members discovered challenges in explaining Islam. Having been born in various countries including the U.S., they practiced their religion in different ways. As they talked and worked, they came to see that the cultural differences in the ways they practiced Islam had implications for the content they would put in their app.

The program coordinator and teacher had to decide whether to either curtail the deep discussions of Islam and Islamophobia so that the girls could finish their work on schedule or allow them to have full discussions, knowing that they would not complete the app. The adults decided to find a midway point, encouraging the group to create a prototype rather than aiming for a fully functional app. Guided by the program coordinator and teacher, the participants programmed about half of the app and created a storyboard that showed their full plan. Adopting this achievable goal enabled the girls to continue their meaningful conversations while enabling them to feel they had achieved a major goal and giving them a product to display at the site's culminating event.

### ***Tension Between Attentiveness and Authentic Long-Term Work***

Sometimes participants grew weary of working on their long-term projects. For example, a focus group respondent said:

Sometimes working on the same project [for] a really long time can get boring, and it can also get you off-task sometimes—sometimes, if you're working with your friends. Knowing my friends, I know I talk to them, but you also have to focus on your work to get it done. It's kind of a challenge.

Focusing for a long time on one goal can be hard. Afterschool programs have to consider

participants' need for novelty, as young people may lose interest and choose to spend their time elsewhere. Returning week after week to the same problem, with the same constraints and trade-offs, was difficult for some participants, particularly those with little previous experience with long-term projects.

One way Techbridge Girls helped participants sustain interest was to implement a final showcase event, which gave participants both a deadline and an opportunity to show their work to family and friends. Some sites had showcase events during the first year of the project. Based on this experience and on the need to sustain interest, program staff updated the curriculum for the second year so that every site would have a culminating event. In focus groups and observations, participants repeatedly talked about the importance of being able to show their projects to their families and friends, even if they had a prototype rather than a finished product. One reason was that they wanted a tangible thing for their hours of effort: An object gave significance and visibility to their work. Another reason was that having something to present enabled participants to explain their work to their families.

### **Managing Tensions: How and Why**

Because of modifications the teachers and program coordinators made along the way, the implementation of the community impact project curriculum achieved its intended goals. The curriculum actively engaged participants in extended design experiences and created opportunities for empowerment, which can further stimulate long-term engagement. Program participants made decisions and created projects intended for their specific communities, however they defined those communities. Adults guided participants to scale their projects so that the girls could both accomplish something meaningful and gain experience with all aspects of the engineering design process.

The ways that program coordinators and teachers negotiated the four tensions revealed in our study have implications for design and implementation of long-term STEM projects in other afterschool programs.

**Staff need flexibility to implement the program in line with program goals and values.** In implementing

long-term project initiatives, different program values may come into conflict. For example, a commitment to foreground youth voice can conflict with a programmatic goal to instill engineering career skills. Staff need to be able to make pedagogical decisions that benefit their participants. Just as youth should have some autonomy, so on-the-ground educators need the flexibility to make difficult decisions when programs experience tension. Coaching staff and providing a clear understanding of program goals can empower facilitators to make autonomous decisions that support youth development.

**Participants may need guidance to choose to emphasize process over product in long-term projects.** By redefining the program goal to focus on prototyping and process over finished products, the staff resolved the tension between completed projects and in-depth discussion. Using prototypes, each small group could share its efforts with the larger community, and group members were accountable for discussing their projects in depth, whether or not they had a fully finished product. Scaffolding the culminating event to focus on problem identification, early stages of design, and reflection on process enabled everyone to participate. Learning about prototypes also provided relevant career knowledge, as prototyping is a common practice in engineering.

**Staff need opportunities to communicate regularly with their peers and with curriculum developers.** Biweekly meetings guided the work of managers and curriculum developers with program coordinators. Regular meetings with peers and leaders helped frontline staff choose how to modify their projects to best serve their participants, while maintaining the goals of the long-term project engagement. Dialogue with leaders, particularly with curriculum developers, can keep any implementation changes aligned with the goals and values of the program and can create feedback for further iterations of curriculum.

**Staff and leaders need to keep a sense of community and active engagement central to the program.** Because youth can vote with their feet, program staff must focus on keeping participants engaged, even when they encounter challenges. To

Because of modifications the teachers and program coordinators made along the way, the implementation of the community impact project curriculum achieved its intended goals.

make long-term projects possible, afterschool staff need to create and maintain bonds among participants through working and learning together. Other tactics are to implement long-term projects in the second half of the year, after norms and commitments have been established, and to anchor the year with a showcase of participants' projects.

## References

- Bratman, M. E. (2000). Reflection, planning, and temporally extended agency. *The Philosophical Review*, *109*(1), 35–61.
- Calabrese Barton, A., & Tan, E. (2009). Funds of knowledge and discourses and hybrid space. *Journal of Research in Science Teaching*, *46*(1), 50–73.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Dawes, N. P., & Larson, R. W. (2011). How youth get engaged: Grounded-theory research on motivational development in organized youth programs. *Developmental Psychology*, *47*, 259–269.
- Ekundayo, S., Wang, W. Y. C., & Díaz-Andrade, A. (2012, May). The use of activity theory and its principle of contradictions to identify and analyse systemic tensions: The case of a virtual university and its partners. *CONF-IRM 2012 Proceedings*, *33*. <https://aisel.aisnet.org/confirm2012/>
- Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualization. *Journal of Education and Work*, *14*(1), 133–156.
- Epstein, A. S. (2003). How planning and reflection develop young children's thinking skills. *Young Children*, *58*(5), 28–36.
- Grant, M. M. (2002). Getting a grip on project-based learning: Theory, cases and recommendations. *Meridian: A Kindergarten through High School Information and Communication Technologies Journal*, *5*, 1–17.
- Hauer, A., & Daniels, M. (2008). A learning theory perspective on running open ended group projects (OEGPs). In the *Proceedings of the Tenth Australasian Computing Education Conference*, Vol. 78 (pp. 85–91). Australian Computer Society.
- Mosatche, H. S., Matloff-Nieves, S., Kekelis, L., & Lawner, E. K. (2013). Effective STEM programs for adolescent girls: Three approaches and many lessons learned. *Afterschool Matters*, *17*, 17–25.
- National Research Council. (2010). *Surrounded by science: Learning science in informal environments*. National Academies Press. <https://doi.org/10.17226/12614>
- Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research*, *34*(5, Pt. 2), 1189–1208.



# From Downtime to Prime Time

## A Funder's Role in Enhancing Summer Learning

**Judith W. McBride and Anita M. Baker**

On a cold winter's day, staff who oversee summer program funding from the Hartford Foundation for Public Giving in Connecticut open a learning community session for the 42 nonprofits that operated summer programs with its support last summer. "It's a great time to think summer again and begin the early planning that gets us ready to respond to the needs and interests of children, youth, and their families this summer!" An early start is critical to effective summer planning (Schwartz et al., 2018).

In this first learning community session since last summer's programs, foundation staff invite providers to share their news. "What worked? What challenges did you see?" Seasoned providers highlight field trips taken, books introduced, newsletters crafted by youth

and shared with families, partnerships initiated, and other activities that worked. Some providers acknowledge challenges managing behavioral issues, working with youth who may have mental health challenges, and broaching conversations with parents about needed supports and local resources. Foundation staff and the evaluation partner add accomplishments and issues from providers' final reports for consideration: "Together, you engaged nearly 10,000 youth from across the Greater Hartford region, including 500 participants with developmental or physical challenges!"

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**JUDITH W. MCBRIDE**, MA, JD, is director of grants and partnership investments at the Hartford Foundation for Public Giving in Connecticut. She dedicates this article to her parents, both educators, who enrolled her in a youth development program every summer from age 7 to 18. She sees these experiences as the foundation of her lifelong learning.

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The session includes city and school district representatives, other funders, and speakers, including the evaluation partner, who come together to support quality summer programming for underserved youth. Agendas for sessions are drawn from program visits and from providers' ideas in reports and grant applications. For example, recent sessions included guest speakers discussing urban trauma and staff self-care; providers learned about youth mental health first aid and previewed school district summer plans. The goals are to expand the collective capacity of providers to integrate effective strategies for addressing challenges and to work as *thought partners* in delivering quality summer programs. Our experience suggests how funders can deepen their impact in low-income communities by tapping the experience of nonprofits and partnering with them and other local experts to improve program outcomes.

## Beyond Funding Support

Each summer across the country, community-based nonprofits of all sizes work with children and teens in summer programs, often on the heels of their afterschool programs. Providers often can be challenged to quickly design and staff programs to engage participants in meaningful summer learning. It's a high calling! But with early planning, modest funding, and technical assistance, providers can deliver. The Hartford Foundation has sought to provide that layered support to nonprofits since 2008. In doing so, we have enhanced the network's capacity to learn what works.

Like many funders, the Hartford Foundation began summer program support by providing grants. Our fundamental interest always has been to give young people from low-income families access to quality summer programs. We sought to address the well-documented "opportunity gap," in which lower-income youth have less access to quality summer experiences than higher-income children. Our focus has been to support providers in enhancing positive youth development: enabling kids to explore new experiences, build new skills, learn to be kind to and inclusive of others, develop new friendships to support social and emotional growth, and build their independence in safe settings with caring

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staff. Equally important has been building the evaluation capacity of providers to examine what worked and what didn't so they can make adjustments.

Of course funding is critical, but it's only one factor. Providers also need support in integrating practices that improve program quality. In response, the Hartford Foundation adopted a long-term strategy to enhance providers' collective learning. As a community foundation, we provide technical assistance that improves our network's collective capacity to provide quality summer learning experiences for underserved youth.

We also recognize a fundamental need to support providers in identifying program goals and targets and in implementing data collection and evaluation strategies. This support helps them more fully consider in their annual program reviews what worked and didn't work; it allows assessment of outcomes for staff and funders. We moved away from focusing solely on grants and toward convening providers and supporting them to address challenges in ways that are driven by data and are cost-effective. The approach fulfills our commitment to support nonprofits in engaging youth from challenged communities to reduce the disparity in access to summer programs that often occurs because of young people's race and ethnicity, where they live, or their family income. This work contributes to the foundation's social justice strategy.

## Summer Learning: An Evolution in Practice

Since the 1930s, the Hartford Foundation for Public Giving, a community foundation that serves the 29-town Greater Hartford region, has been working with local nonprofits to create diverse, quality summer programs. In 2008, the foundation began building the capacity of grantees to enhance and evaluate their summer programs.

This shift enabled the Hartford Foundation and its thought partners to address directly the challenges providers faced in serving youth of color from low-income families. We set out to address core questions:

- What is needed to implement effective short-term (one- to six-week) programs?
- What enrichment and other supports do young people need?

- How can programs engage parents and families?
- How can we support partnerships and staff training?
- What do providers need to enhance their ability to assess their own programs and report outcomes—with limited resources?

Summer programming, and specifically addressing learning loss, has been part of our work for some time. We have always been careful not to present summer learning solely as an academic exercise. Summer programs can be more than just an extension of school, more than just recreation. The Hartford Foundation approach encourages providers to infuse multiple learning modalities into their programs. Programs are structured to accommodate family schedules as much as possible and to integrate the developmental needs parents see in their children.

The approach evolved organically as we responded to youth and program needs that our nonprofit and other partners identified. For example, program staff have welcomed support in addressing considerations in working with youth of color, young people with special needs, and children who may be experiencing trauma in neighborhoods facing high unemployment and violence. Our learning community has discussed ways to tap and nurture the resilience young people can develop in response to the trauma they experience (Akbar, 2017).

The learning community regularly takes on issues that affect program quality and that funding alone cannot always address. A central strategy therefore has been to connect the learning community's ongoing work with others through presentations by community partners from the public schools, institutions of higher learning, the public library, and stakeholders providing mental health and other services.

### Summer Learning Matters

In the late 1990s and early 2000s, researchers were accruing evidence that summer learning contributed significantly to positive outcomes for youth. Some research (particularly Alexander et al., 2007) suggested that summer learning loss was a major contributor to differences in outcomes for youth from families with lower economic means. Continuing study of the “summer slide” (summarized in McCombs et al., 2011)

suggested that summer learning loss is one of the most significant causes of the academic opportunity gap between lower- and higher-income youth. More recent studies (von Hippel & Hamrock, 2019; von Hippel et al., 2018) suggest that the apparent “gap growth” was a limitation of standardized testing at the time. Rather—in a finding that will surprise no one who works with low-income children—the opportunity gap already is evident before children begin school. However, the new findings do show that learning slows during the summer, regardless of socioeconomic status. Therefore, summer can be a time for students who are behind for whatever reason to catch up (von Hippel & Hamrock, 2019). These findings are consistent with the experience of Greater Hartford area summer program providers who have been able to track educational and other developmental outcomes.

In addition to the academic opportunity gap, summer programs also address health disparities. Low-income youth tend to have less access to healthy meals over the summer than more affluent children. Six out of seven students who receive free or reduced-price lunches lose access to them when school lets out (Feeding America, 2016). They often also have fewer opportunities to engage in physical activity and to develop and maintain connections with other youth and adults.

Researchers examining summer learning have acknowledged that summer programs do not need to duplicate school-year academic programs; rather, they can complement school learning with enrichment activities (McLaughlin & Pitcock, 2009), such as library and museum visits. The Hartford Foundation helps providers offer engaging and memorable enrichment opportunities in varied settings at no or low cost.

The learning community regularly takes on issues that affect program quality and that funding alone cannot always address.

### Summer Learning Practice in Greater Hartford

Early on, the Hartford Foundation introduced summer program providers to the then-current research on learning loss, which aligned with practitioners' experience with the children they serve. Greater Hartford program staff have witnessed firsthand a skills gap among low-income inner-city youth. They have seen the need to improve vocabulary, reading,

and writing skills and to develop social and emotional competencies that promote well-being. We support providers in integrating academic learning strategies naturally—without forcing the fit or changing the character of their programs. For example, foundation funding supports program staff in identifying age-appropriate books that match program themes. A grant to the Hartford Public Library enabled the network to get assistance in identifying and accessing age- and theme-appropriate books and to track participants' summer reading.

Each nonprofit applies to the Hartford Foundation early in the year for summer funding. The application asks about priority needs, youth to be served, recruitment, program structure, family involvement, and expected participant outcomes. Applications present summer program themes and age-appropriate calendar-based plans, as well as skill development targets and strategies to document outcomes. Once programs receive their funding decisions, providers develop staffing and training plans, working to maintain low participant-staff ratios. Most providers have consistently met participant recruitment goals and have reported high attendance.

Several summer programs link to school-year afterschool programs, often serving many of the same youth. Over a dozen school-based summer programs complement the Hartford Public School District's Early Start morning summer school programming by providing afternoon programming. Providers have become masters at creating learning components that kids find interesting and fun and that align with program content. The foundation convenes providers so they can draw on each other's good ideas and keep their programming fresh.

### **Hartford Foundation Summer Investments**

The Hartford Foundation's grant-making strategy supports nonprofits in providing three kinds of programs that integrate academic and experiential learning activities with youth development:

- Campership programs providing free or reduced-price activities for youth in grades K–12

- Tutorial programs focused on academic or other enrichment for K–12 youth
- Counselor-in-training leadership development programs for young people ages 12–16

A fourth kind of programming is offered to all summer programs and participants: To expand enrichment options, the foundation funds visits to and partnerships with local institutions such as the science center, the public library, and a farm with an education center.

Our funding primarily targets Hartford and East Hartford youth; however, several programs also naturally reach students from across the region in ways that align with the foundation's work with school districts. Programs that serve people with intellectual or other challenges can include not only youth but also adults throughout Greater Hartford.

Our summer funding has been consistent for many years, with small increases for targeted program enhancements. Increases have supported access to books and other literacy supports, family engagement, and staff training; increases have also been awarded to sustain or increase access to camperships and to support other specific requests to enhance program quality. Providers project their total funding for the summer in their applications. Generally, the foundation limits

funding of campership and tutorial programs to 50 percent of program costs to encourage providers to seek support from other sources, thereby enhancing sustainability. The strategy builds in some flexibility for small organizations with limited fundraising capacity. Funded programs also are aided by program fees, private donors, and other local foundations or corporations; some access state or local resources. Hartford Foundation grants are adjusted for program size and for each provider's track record in working with the foundation and in demonstrating outcomes. Funding is also set aside for speakers and technical assistance on program evaluation.

As of 2018, 44 percent of all free and reduced-price camperships and counselor-in-training positions in the region were supported by Hartford Foundation funding.

Once programs receive their funding decisions, providers develop staffing and training plans, working to maintain low participant-to-staff ratios. Most providers have consistently met participant recruitment goals and have reported high attendance.

## Hartford Foundation Investments by the Numbers

### FUNDING

In February 2020, the Hartford Foundation approved \$819,250 to support 42 agencies delivering 57 programs in summer 2020. Of course, the COVID-19 pandemic made it difficult for some programs to operate. The foundation worked with providers to adapt their plans to the emerging restrictions.

### PARTICIPANTS

In 2019, campership, tutorial, and counselor-in-training programs served 9,923 participants across the region, including 509 youth and adults with disabilities and 3,758 people from Hartford and East Hartford. Enrichment opportunities, including science center and library visits, engaged 4,911 youth in foundation-supported summer programs.

The core costs of counselor-in-training leadership development programs consist of youth stipends and staff supervision. Recognizing that older youth have few opportunities to earn money, the foundation has covered the full cost of counselor-in-training positions. We also fully fund the enrichment opportunities offered to all summer programs, negotiating the fees to keep the programming cost-efficient.

### A Variety of Summer Options

Parents know their children look forward to the summer and want to do something interesting and fun. In response, Hartford Foundation summer investments intentionally have supported a wide range of programs. Here are just a few.

- Hartford's Camp Courant, one of the oldest and largest free summer day programs in the country, offers dozens of activity choices, from computer lab, photography, and mock trials to golf, fishing, and yoga.
- Ebony Horsewomen offers daily horseback riding, animal science classes, a gardening program, culinary classes, arts and crafts classes, and weekly field trips.
- MI CASA Summer Camp, a program by the Hispanic Health Council, emphasizes environmental science,

nutrition and health, cultural activities, sports, and technology, along with academic enrichment.

- Adventures in the City Freedom School, originally designed by Marian Wright Edelman of the Children's Defense Fund, combines an academic approach to literacy with a focus on civil rights, leadership development, and social action.
- American School for the Deaf offers summer programs for children and youth who are deaf or hard of hearing, including classroom-based activities for younger students and hands-on community activities for older teens. It also provides a separate residential program, Camp Isola Bella, focused on summer learning and positive youth development.
- Trinity College Dream Camp counselor-in-training program supports leadership development and college exploration while preparing teens to work with children.

To make sure families know their options, the foundation publishes a searchable online summer program directory in collaboration with the Connecticut After School Network and the Hartford Public Schools.

The foundation and program providers recognize the multiple roles summer programs can play. These programs not only support literacy and other academic learning but also, more fundamentally, provide safe, affordable options for working parents with children and for people with disabilities. In inner cities, summer can bring heightened youth violence if youth are not engaged. The foundation also is committed to supporting summer employment programs for Hartford students and young adults, including young people who are parents, who are not in school or working, who are involved in the juvenile justice system, or who are aging out of foster care.

In addition to school sites, programs use a variety of facilities, including college campuses, churches, traditional camp sites, and neighborhood parks. Many use local pools, museums, and heritage sites for off-site programming and community exploration. Most offerings are day programs, with a few residential program options.

To support staff, many programs involve adolescents as counselors-in-training, draw on alumni as counselors, or collaborate as summer youth employment placement sites. Older peers can engage youth in ways adults sometimes cannot.

Participants can attend programming throughout



the summer or for specific periods, and some attend more than one program over the summer. Nearly all programs have focused increasingly on engaging families and on providing opportunities for extended learning during and after summer participation.

## **Summer Programming Challenges and Solutions**

As part of our effort to promote quality, the Hartford Foundation has worked with providers, school district staff, and others to grapple with the fundamental challenges in implementing summer programs. The work requires regularly examining issues inherent in summer programming and diagnosing the capacity of the ecosystem of summer programs to address current and emerging needs.

### **Structuring Short-Term Programming**

Several funded programs are offered for four to eight weeks over the summer, with a requirement to participate for multiple weeks. Others are shorter, one- or two-week programs with consecutive enrollment options. The foundation has worked with providers to develop strategies for short-term programming that is intensive enough to have an impact. Providers must define outcomes that can be achieved in the available time and must identify vocabulary and books youth will use. All programs must build in meaningful discussions to reinforce learning before, during, and after field trips or other enrichment activities, a strategy that is useful for both shorter- and longer-term programs.

### **Reaching Summer School Students**

Many of the students who could benefit most from a full day of summer enrichment are required to attend half-day summer school sessions for four to five weeks. In response, a number of summer programs use foundation support to offer enrichment programming in the afternoon. They partner with school staff to ensure that school and program curricula reinforce each other.

### **Engaging Families**

Maximizing summer learning has required providers to integrate strategies that extend learning into the home. With guidance from the Hartford Foundation and the learning community, programs have helped parents and other caregivers engage with their children around what they are learning. Newsletters, some of which are developed by participants, keep families in the know

about program happenings. Providers invite families to share their expertise, visit the program to participate with their children, attend sessions designed to help them support their children's learning, and celebrate with children and staff in culminating events.

### **Supporting Staff Training**

Providers recognize the need to enhance staff training. The foundation's funding application asks about priority training needs, so that funding can target them. Learning community sessions also meet professional development needs. The foundation invites experts to address training needs identified in applications, such as how to teach close reading techniques, address participant mental health concerns, work with LGBTQ+ youth, and implement effective discipline strategies.

### **Engaging Partners**

To expand summer enrichment opportunities, many providers have developed partnerships with other local nonprofits to enhance activities, bringing in specialized expertise in such areas as dance or computer science. For example, a school-based program connects with a local college's internet café that helps participants develop computer skills. Many providers tap local professionals to read with children or to share their career paths.

The Hartford Foundation also helps grantees form partnerships with each other through the connections made in the learning community. For example, one nonprofit that supports academic and cultural dance skills for West Indian youth has connected with a program focused on computer science and robotics skills. These two providers bring participants to each other's sites so the children can share what they have learned and work with youth from other schools and neighborhoods.

### **Enhancing Capacity to Report Outcomes**

Providers need to assess outcomes not only so they can report to funders, but, first and foremost, to see what works and what they need to change. However, their resources are limited; few can afford, for example, to hire an outside evaluator or to devote substantial amounts of staff time to collecting and analyzing data. To address this challenge, the foundation provides individual technical assistance consultations with our evaluation expert to help providers design and conduct manageable evaluations. We also provide hands-on evaluation exercises at all learning community sessions.

Providers learn to plan efficient data collection and appropriate analyses, capture relevant data, use data to assess outcomes, and identify what else they need to know. They also have access to a summer programs evaluation toolkit with resources, including evaluation strategy briefs, surveys and other data collection instruments, and research links. Feedback after learning sessions and in final grant reports verify that providers use the training and toolkit to help them assess outcomes.

### Enrichment Partnerships

The Hartford Foundation offers free enrichment opportunities to grantees by funding partnerships with other local organizations. Here are examples from the past few summers.

- The public library received foundation funding to help program staff identify age-appropriate books that complement program themes. Local branches also offered literacy activities for youth and families throughout the summer.
- The science center welcomed program field trips and arranged for its mobile van to visit program sites to offer tailored lessons.
- A local farm's education center provided opportunities for kids to get outside and experience farm animals, gardening, and hayrides. Individual site visits and customized multisession science and agricultural learning focused on such topics as pollinators and food production.
- A local nonprofit specializing in African culture exposed participants from various programs to African dance, music, storytelling, and visual arts.
- A local college's manufacturing mobile training lab gave participants hands-on experience with real equipment to enhance the foundation's efforts to expose youth to careers early on.

These partners presented at learning community sessions to help providers build in experiential enrichment activities to add to the enrichment they already offer. As providers integrate these options, we encourage them to use their evaluation skills to determine how and to what extent the enrichment partners sup-

We also provide hands-on evaluation exercises at all learning community sessions. Providers learn to plan efficient data collection and appropriate analyses, capture relevant data, use data to assess outcomes, and identify what else they need to know.

port participant outcomes. Reviews of these assessments have shown that these enrichment options have been cost-effective and have expanded partner and programming diversity.

### Learning Community

The Hartford Foundation requires its summer program providers to attend two half-day learning community sessions. These sessions help providers apply for funding and then enable them to plan, carry out, and assess quality summer programming.

In addition to formal presentations, learning sessions always include interactive evaluation learning, and time is set aside for providers to work on developing clear goals.

Summer programs require early planning, so the first session is held in December or January, shortly after the foundation issues its request for proposals for summer funding. A second session in early May enables providers to firm up plans and share ideas. The content of sessions is driven by issues that bubble up from summer site visits and providers' final grant reports. The winter session, designed to spark conversations, focuses not only on funding priorities, but also on ways of addressing issues identified by providers, enrichment partners, the evaluation partner, and foundation staff. Discussions take up a range of issues to help providers finalize, build on, and redesign their programs as needed—from strategies for engaging family members to programming that targets teens or young children. In the January 2019 session, for example, the foundation tapped the expertise of a national mental health organization and a local child psychiatrist to build understanding of local data on the incidence of mental health conditions among children, the need for early intervention, and the roles families and providers can play.

### The Role of Evaluation

A cornerstone of the foundation's support for the summer program learning community is developing evaluation capacity. Recognizing that providers have different levels of comfort with program evaluation, we aim to build staff confidence. One strategy is that we routinely revisit concepts, such as target

setting and analysis planning, that can be difficult to operationalize. Besides coaching providers during learning community sessions, the evaluation partner is available for individualized consultations, either in conjunction with learning community meetings or on demand. Providers can identify their own evaluation support needs, or foundation staff and the evaluation partner may offer assistance after reviewing annual reports. Assistance is provided by appointment, either over the phone or through in-person meetings at the foundation or on-site.

Foundation staff and the evaluation partner also select about one-third of all funded programs for evaluative site visits each summer. In site visits, the evaluation partner documents program and evaluation strategies in use, checks in with providers on concerns, and follows up on changes. This strategy adds external review to providers’ annual program reports and promotes evaluation as a tool to help providers deliver productive services.

All providers complete structured final reports that detail program strategies and participant outcomes. This annual and longitudinal evidence is used to inform program development and decisions around funding and additional capacity building.

In learning community sessions, providers learn

not only to refine their programming to enhance participant learning and social development, but also to evaluate their progress on those components. Interactive evaluation workshops have addressed a wide range of topics, as outlined in Table 1.

We have seen providers’ capacity to conduct basic evaluation and to use the results to strengthen programs increase substantially. In 2008, many providers struggled to describe clear program and participant outcomes and to identify valid indicators of those outcomes. Since 2013, providers implementing all four types of summer programs have consistently been able to clarify what they have been working on and whether and how those efforts have benefitted participants’ academic and social development. With few exceptions, each year the summer providers have completed standardized reports that show participant outcomes and outline how the providers enhanced summer learning, engaged families, and modified programs that were not delivering desired results.

### Ongoing Summer Learning Support

The Hartford Foundation goes beyond providing grants to respond to needs providers identify in learning community sessions, site visits, and final reports. The idea of enrichment offerings, for example,

**Table 1. Evaluation Topics Covered in Recent Learning Community Sessions**

Using targets to help determine when programs are working	Assessing evidence-based programs
Developing and administering survey questionnaires and analyzing responses	Using data strategically
Using electronic data collection strategies	Developing and using rubrics
Developing and using observation summaries	Collecting data from family members
Developing and using logic models and pathway maps for program design and evaluation	Learning from and about youth counselors, teen participants, alumni and staff; engaging these groups in data collection
Structuring evaluation designs	Coding and analyzing open-ended data
Understanding summer learning research	Using pre- and post-participation assessments effectively

first emerged at an early learning community session when a provider asked whether funding could support visits to the science center.

Recognizing current state and local fiscal challenges, we see an ongoing need to support core program costs — that is, staffing and program content. Beyond foundation funding, our work to develop provider capacity to demonstrate outcomes can help them generate support from other funders.

As the foundation has continued to convene the learning community and to see growth in providers' ability to set goals and report outcomes, providers have improved their ability to meet young people's academic and developmental needs. Other funders can achieve similar results in other strategic areas if they take similar steps:

- Engage grantees and others in learning communities to expand their collective capacity to integrate effective strategies for addressing challenges and to work as thought partners.
- Convene thought partners regularly and select meeting content choices based on what providers and participants need, want, and do.
- Keep evaluation data collection, analysis, and reporting manageable and make sure that providers have the tools and supports to conduct meaningful evaluation. Remind providers that evaluation results are meant for program improvement as well as for reports to funders.
- Target funding increases to meet modest immediate needs, such as book purchases or staff training, that are identified in final reports.
- Promote partnerships among summer providers and between providers and other organizations.
- Explore enrichment opportunities that can be offered to all providers receiving grant support.

Going beyond funding to provide development and technical assistance on program improvement and evaluation has been an effective strategy for the Hartford Foundation. This approach has also been successful for other learning communities established by the foundation, including those that address workforce development and nonprofit capacity building, in

which participants receive technical assistance in achieving individual and foundation goals and learn through evaluation. Engaging grantees in this way will not cure the complex, often chronic issues inherent in summer programming for youth from low-income communities; however, this strategy does enable funders and providers to address challenges together with greater intentionality.

## Getting Ready for Summer in the COVID-19 Environment

In April 2020, the Hartford Foundation convened its second learning community session for the program year, this time facing the challenges of the COVID-19 pandemic. Schools had been closed since mid-March, and it was not yet clear whether state officials would allow summer programs to operate. A few residential camps and other programs already had decided not to open. Others were assessing whether they could offer remote learning or other socially distanced opportunities. With the early shelter-in-place restrictions, some providers were struggling to manage staffing and other operating expenses.

The foundation offered 2020 grantees the flexibility to redesign their programs, adjust participation goals, and use the funding to meet their changing program needs. Our thought partnership facilitated open conversation. The shared interest was to engage school-aged youth, as well as children and adults with disabilities, in fun summer learning activities that promote well-being. Early funding supported providers not only in modifying their programs for summer, but also in getting an early start in developing strategies that can be used in their afterschool programs in the fall. The foundation's Nonprofit Support Program also was building agencies' capacity and supporting them in exploring remote learning, technology, virtual fundraising, and financial assessments.

This learning community session needed to be different from previous years' sessions but also needed to continue to explore shared challenges and solutions. The foundation hosted a remote session with breakout groups to facilitate the exchange of questions and ideas. The session opened with key questions, some of whose

In April 2020, the Hartford Foundation convened its second learning community session for the program year, this time facing the challenges of the COVID-19 pandemic.

answers were not yet known: What are school district plans for the summer? Will schools be accessible? Will the school year start early? What are effective online platforms and curricula? Providers talked about the additional essential needs for children and families—access to laptops, the internet, and other technology.

Speakers presented strategies for organizational problem solving and for addressing trauma—whether related to the pandemic or to other causes—among children, families, and staff. Providers exchanged virtual platform options, acknowledging the need for strategies to sustain quality staff–youth relationships, peer connections, and family engagement. They also talked about ways to incentivize participation and to implement virtual learning in creative ways to avoid burnout. They explored innovations, such as integrating virtual youth teams and calling on local restaurants to donate pizzas or other food as prizes delivered to participants' homes.

After the April session, the foundation continued to foster community learning by sponsoring trainings on the learning platform used by the school district and by hosting weekly chat sessions in which providers could share ideas.

Learning community discussions continue to elevate the developmental needs of staff and of the youth and families they serve, drawing on practical ideas from providers and on evaluation methods and data that can effectively inform practice. Future sessions will explore providers' ability to operate during the pandemic and after, to identify realistic outcomes, to determine what is needed to adapt programs, and to understand the effectiveness of the pivoting strategies they used. With this support, the youth-serving organizations can continue to provide afterschool and summer programs through these challenging times.

## Summer Time Is Prime Time

All people are the sum of their experiences. Providers who offer young people opportunities to develop new skills and relationships and to see new places and who naturally build in opportunities to read, write, and think critically can help realize summer's potential as a prime time for memorable life lessons. Funders can expand their perspectives by engaging providers and partners to inform grant-making strategies and support to realize the potential of summer learning.

## References

- Akbar, M. (2017). *Urban trauma: A legacy of racism*. Purpose Driven Publishing.
- Alexander, K. L., Entwisle, D. R., & Olson, L. S. (2007). Summer learning and its implications: Insights from the Beginning School Study. *New Directions for Youth Development*, 2007(114), 11–32. <http://doi.org/10.1002/yd.210>
- Feeding America. (2016, June 3). 18 million children lose access to school meals this summer. <https://www.feedingamerica.org/about-us/press-room/children-lose-school-meals-summer>
- McCombs, J. S., Augustine, C. H., Schwartz, H. L., Bodilly, S. J., McInnis, B., Lichter, D. S., & Cross, A. B. (2011). *Making summer count: How summer programs can boost children's learning*. RAND Corporation.
- McLaughlin, B., & Pitcock, S. (2009). *Building quality in summer learning programs: Approaches and recommendations*. National Summer Learning Association. <https://www.wallacefoundation.org/knowledge-center/Documents/Building-Quality-in-Summer-Learning-Programs.pdf>
- Schwartz, H. L., McCombs, J. S., Augustine, C. H., & Leschitz, J. T. (2018). *Getting to work on summer learning: Recommended practices for success* (2nd ed.). RAND Corporation. [https://www.rand.org/pubs/research\\_reports/RR366-1.html](https://www.rand.org/pubs/research_reports/RR366-1.html)
- von Hippel, P. T., & Hamrock, C. (2019). Do test score gaps grow before, during, or between the school years? Measurement artifacts and what we can know in spite of them. *Sociological Science*, 6. <http://doi.org/10.15195/v6.a3>
- von Hippel, P. T., Workman, J., & Downey, D. B. (2018). Inequality in reading and math skills forms mainly before kindergarten: A replication, and partial correction, of “Are schools the great equalizer?” *Sociology of Education*, 91(4). <http://doi.org/10.1177/0038040718801760>



# Monitoring the Experiences of OST Volunteers

The Mixed-Method, Open-Ended Volunteer Experiences (MOVE)

**Taylor L. Crisman, Ignacio D. Acevedo-Polakovich, Lucas A. Al-Zoughbi, Sara T. Stacy, Sarah E. Ogdie, & Sam Obeid**

In many applied youth development settings, including out-of-school time (OST) programs, volunteers play essential roles (Brennan, 2005). In some, volunteers are integral to service delivery — for example, serving as mentors. In others, volunteers help link youth-serving organizations or their participants with needed resources, assets, or opportunities (Brennan, 2007).

Interacting with volunteers can promote a variety of strengths and assets among youth (Durlak et al., 2010; Mahoney et al., 2010). The relationship between a young person and a caring adult may be key among these. Youth involved in safe and supportive relationships with adult mentors are more likely than others to develop traits that foster successful

development, including independence, resilience, and adaptability (Herrera et al., 2011).

Research about the experiences of volunteers in OST and other youth-serving settings is limited. However, research in other settings provides important insights. One is that organizations that undertake careful, intentional, data-informed volunteer management are more likely to experience full, positive contributions from volunteers

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(Brennan, 2007; Smith, 2016; Wilson et al., 2016). Poor volunteer management and limited recognition lead to high volunteer dropout. Across settings, over a third of volunteers donate their time for a year or less (Eisner et al., 2009). Although poor volunteer management can have adverse effects, volunteering under well-managed conditions can foster a wide array of benefits to the volunteers themselves (Wilson et al., 2016). Furthermore, quality volunteer management is a crucial component of volunteer retention (Brennan, 2007; Eisner et al., 2009).

In order to support youth-serving organizations' efforts to engage volunteers sustainably, we developed and tested the Mixed-Method, Open-Ended Volunteer Experiences (MOVE) Assessment, a two-phase approach to identifying and monitoring the benefits volunteers associate with their service in OST programs. Building on traditional sequential exploratory mixed-method designs (Creswell et al., 2003), MOVE begins by qualitatively exploring and documenting volunteer experiences. Findings then guide design and implementation of a recurring quantitative assessment that can become the foundation for continuous improvement in volunteer management. This paper introduces MOVE by describing its application in ANYTOWN, an OST program sponsored by Community Tampa Bay that focuses on promoting inclusiveness, community involvement, and social responsibility among high school students.

### **The Program: ANYTOWN**

ANYTOWN is a week-long residential program that is offered several times during a typical summer. During the program, high-school-age participants are assigned to dorms and small discussion groups that expose them to participants whose race, ethnicity, faith, gender, socioeconomic status, sexual orientation, sex, ability, age, or nationality differ from their own (Acevedo-Polakovich et al., 2016). They participate in large-group workshops that discuss systems of injustice, including sexism, racism, heterosexism, and systemic oppression, and that outline the foundations of community action. They then discuss the personal relevance of these workshops in small groups (Acevedo-Polakovich et al., 2016).

[O]rganizations that undertake careful, intentional, data-informed volunteer management are more likely to experience full, positive contributions from volunteers.

Most of the individuals who facilitate ANYTOWN are trained volunteers; they range in age from 16 to over 70. All volunteers under age 18 must have previously participated in the program. New volunteers are required to attend two volunteer training workshops. The first workshop is for new volunteers only, and the second is for both new and returning volunteers. Both workshops focus on key volunteer competencies. After an overview of volunteer responsibilities, the workshops cover core concepts, facilitation skills, participant engagement, physical and emotional safety for youth, and mandatory reporting. In addition to these workshops, volunteers attend a social networking event before they serve. During ANYTOWN's implementation, all volunteers serve for the whole week. Immediately after the program ends, they participate in a debriefing session. They then have access to several professional development opportunities including additional training, service on the organization's board, and participation in community-building and networking events.

Like many other OST programs, ANYTOWN has a long history of systematically evaluating its effects on participants (e.g., Acevedo-Polakovich et al., 2016), but it has given little attention to formally exploring the experiences of volunteers. Its administrators therefore asked their university-affiliated evaluators to collaborate on developing an approach to documenting the experience of volunteers. This request led to our joint development of the MOVE assessment, a two-phase mixed-method approach where we first explored volunteers' experiences using qualitative methods and then tested the insights we gained using a quantitative approach. We designed the MOVE assessment to be an open-source tool that any OST program can use.

### **MOVE Phase 1: Exploring Volunteer Experiences**

Phase 1, conducted in summer 2018, was a qualitative assessment of the experience of ANYTOWN volunteers.

#### ***Participants***

Twenty-seven volunteers who served in at least one implementation of ANYTOWN in both summer 2017 and summer 2018 provided the data for Phase 1. The demographic information we obtained from these

volunteers could not be linked to their questionnaire answers. Of the 27 volunteers, 62 percent identified as cisgender women, 35 percent as cisgender men, 1 percent as transgender men, and 1 percent as transgender women. Ethnic identifications were 41 percent European American, 26 percent African American, 16 percent Latinx, 11 percent multiethnic, and 3 percent Asian American. The demographic background of these volunteers does not differ notably from that of volunteers in other programming years for which we have information. Put simply, this group seems to be a good representation of typical ANYTOWN volunteers.

### Methods

Volunteers were asked to answer a questionnaire, created by ANYTOWN staff, comprising 12 open-ended questions and three multiple-choice questions. Some questions focused on volunteers' perceptions of their experience, for example, "Overall, how would you describe your ANYTOWN experience as a volunteer?" Others asked about respondents' interest in continued service to the program in, for example, year-round follow-up programs or future residential sessions.

Participants completed the questionnaire after their volunteer stint at the OST program. We analyzed the open-ended responses using Graneheim and Lundman's (2004) four-step qualitative content analysis method: We first identified meaning units, which we then compared and grouped into tentative subcategories. After reorganizing subcategories based on observed patterns, we established the final set of analytical categories.

### Phase 1 Results

We identified three analytical categories in volunteers' responses:

- Personal growth
- Specific skills
- Professional development

The *personal growth* category included descriptions of *self-improvement or personal insight* from the volunteer experience. For example, one respondent

said that volunteering "pushed me to be more aware of my strengths alongside my areas for continued growth. It challenged me to be not just a better youth mentor and workshop facilitator, but also a better person." Another theme was *critical transformation*: "My experience was life-changing. I was not expecting to love the program and the people as much as I did. It was very eye-opening." The personal growth category also included *emotional benefits*; for example, one respondent wrote, "It was very rewarding as well as emotional. I learned quite a bit especially about myself that I can use going forward." Some respondents observed development of *cross-cultural empathy*: "It just helped me understand others more, especially when it comes to stereotypes and how people feel about them."

The *specific skills* category included volunteers' descriptions of increased abilities in three areas. Growth in *leadership* skills is represented by this response: "ANYTOWN offered numerous platforms and opportunities for me to develop my facilitation, planning, and public speaking skills." A second area was *communication* skills, for example, "I've learned about dialogue, inclusive language, and truly how to live a different life." The third area, *cultural responsiveness*, is exemplified in this volunteer response: "I believe that ANYTOWN has provided me with the skills and tools to bridge conversations that may be a little heated. I think it's given me a new understanding and appreciation for diversity."

The *professional development* category primarily included volunteers' descriptions of enhanced opportunities and skills associated with work-related networking. For example, one participant stated, "I can now connect with others better and more efficiently."

With relatively little resource expenditure, Phase 1 provided important insights into the experiences of volunteers. Understanding these experiences is a key first step in effective volunteer management and recognition, which in turn are crucial components of volunteer retention and, ultimately, of the success of volunteer involvement (Brennan, 2007; Eisner et al., 2009). Moreover, using the volunteers' perspectives and insights to guide the design of subsequent evaluation

This request led to our joint development of the MOVE assessment, a two-phase mixed-methods approach where we first explored volunteers' experiences using qualitative methods and then tested the insights we gained using a quantitative approach. We designed the MOVE assessment to be an open-source tool that any OST program can use.



was consistent with the values of the OST program, which emphasize engagement and full participation.

## MOVE Phase 2: Assessing Volunteer Change

The next step was to establish a quantitative approach to evaluating volunteer experiences over time so we could assess the effects of changes in volunteer management strategies. After ANYTOWN staff and the university-based evaluators discussed Phase 1 results, we collaborated on quantitative measures of the three key categories of volunteer experiences: personal growth, specific skills, and professional development. The university evaluators identified or developed potentially relevant measures and then presented them to the OST staff, who assessed their suitability. After reaching consensus on the measures that were most likely to be useful in assessing volunteer experiences, we administered these measures in Phase 2.

## Participants

Fourteen volunteers who served in summer 2019, the year after Phase 1, provided the data for Phase 2. Table 1 summarizes participants' responses to open-ended demographic questions.

## Methods

ANYTOWN staff asked volunteers to complete pre-test measures after a volunteer training session but before volunteering. The post-test was administered after volunteers completed their stint at ANYTOWN. We conducted a paired-samples *t*-test to compare differences in scores for pre- and post-test measures and calculated descriptive statistics for post-test measures.

## Personal Growth

We selected four measures to assess participants' perceived personal growth resulting from volunteering, using the four categories from the Phase 1 results.

At post-test only, we asked volunteers to use a five-point Likert scale, ranging from "strongly disagree" to "strongly agree," to respond to six items assessing the amount of *self-improvement or personal insight* they experienced as a result of volunteering in the OST program. For example, one item was "I gained new insights about my life." We developed these face-valid items specifically for this assessment.

To measure *critical transformation*, at both pre- and post-test volunteers used the five-point Likert scale to respond to the critical agency subscale of the Measure of Adolescent Critical Consciousness (McWhirter & McWhirter, 2015). The seven items ask participants to rate their belief in their ability and responsibility to contribute to their community and pursue justice, for example, "I can make a difference in my community."

For *emotional benefits*, we asked volunteers at post-test only to use the five-point Likert scale to respond to four items we

**Table 1. Phase 2 Participant Demographic Characteristics**

Characteristic	Number (N = 14)	Percentage*
<b>Gender</b>		
Women	9	64%
Men	5	36%
Other/not reported	0	0%
<b>Race</b>		
Multiracial	4	29%
European American	3	21%
U.S. Latinx	2	14%
African American/Black	2	14%
Middle Eastern	2	14%
Asian American/Pacific Islander	1	7%
<b>Highest level of education completed</b>		
High school diploma	6	43%
Bachelor's degree	5	36%
Master's degree	2	14%
Doctoral degree	1	7%
<b>Sexual orientation</b>		
Heterosexual	6	43%
Other/no answer	4	29%
Queer	2	14%
Bisexual	1	7%

\* Percentages may not add up to 100% due to rounding.

developed about the emotional benefits of volunteering, for example, “I am better able to express my emotions.”

At both pre-test and post-test, participants used the five-point Likert scale to respond to the Scale of Ethnocultural Empathy (Wang et al., 2003). The seven items ask participants to assess their *cross-cultural empathy*, for example, “I know what it feels like to be the only person of a certain race or ethnicity in a group of people.”

### Specific Skills

We selected four measures to use at both pre-test and post-test to assess the effect of volunteering on participants’ skills, using the three categories that emerged in Phase 1.

To assess *leadership* skills, we asked volunteers to use a five-point Likert scale to respond the Sociopolitical Control Scale for Youth (Peterson et al., 2011). The eight items on this scale ask participants to rate statements about their leadership competence, such as, “I can usually organize people to get things done.”

We chose two measures to assess change in participants’ *communication* skills: the eight-item perspective-taking subscale of the Interpersonal Reactivity Index (Davis, 1983) and the four-item Comfort in Communicating Across Differences scale (Nagda & Zúñiga, 2003). The first asks participants to rate their ability to adopt the perspective of others, for example, “I sometimes find it difficult to see the point from another person’s view.” The second asks participants to rate their ability to communicate across differences, using such statements as “I am able to express myself when discussing controversial issues.”

To assess *cultural responsiveness*, we used the Short Form Measure of Cultural Intelligence (Thomas et al., 2015). The 10 items on this measure ask participants to assess their knowledge of, and responsiveness to, their own culture and the cultures

of others. For example, one item says, “I can change my behavior to suit different cultural situations and people.”

### Professional Development

We developed three Likert-scale items to assess the networking opportunities respondents encountered while volunteering at ANYTOWN. For example, one item was, “I built relationships that can be useful in my professional life.” We also asked one open-ended question: “I met \_\_\_\_ people who I can connect with for professional development.” This measure was used only at post-test.

### Phase 2 Results

The results of the measures of volunteers’ personal growth, specific skills, and professional development are summarized in Table 2, which notes statistically significant differences between pre-test and post-test average scores.

### Personal Growth

Average responses to the two personal growth categories measured only at post-test suggest that volunteers believed that their service facilitated their self-improvement or personal insight and brought them emotional benefits. For the two categories measured at both pre-test and post-test, we observed a trend toward

**Table 2. Phase 2 Quantitative Results**

Category	Pre-Test Mean	Post-Test Mean
<b>Personal growth</b>		
Self-improvement or personal insight	–	4.61
Critical transformation	4.90	4.97 <sup>+</sup>
Emotional benefit	–	4.20
Cross-cultural empathy	4.24	4.30
<b>Specific skills</b>		
Leadership	3.90	3.97
Communication perspective taking	4.25	4.41 <sup>*</sup>
Communication across differences	4.32	4.55 <sup>+</sup>
Cultural responsiveness	4.44	4.56 <sup>+</sup>
<b>Professional development</b>		
Networking opportunities	–	4.34
Number of connections made	–	10.21

N = 14

<sup>+</sup> p < .10, <sup>\*</sup> p < .05 in t-test results. A lower p-value indicates greater statistical significance.

a statistically significant increase in average responses on critical transformation but no significant increase in the average score in cross-cultural empathy.

### Specific Skills

Average responses increased significantly between pre-test and post-test for perspective taking, one of the two measures of communication skills. Differences between pre-test and post-test scores in two other areas trended toward significance: comfort in communicating across differences and cultural intelligence. Average responses on the leadership measure did not significantly increase from pre-test to post-test.

### Professional Development

Average post-test responses on the professional development measure suggest that volunteers agreed that their service provided networking opportunities. They reported meeting an average of 10.21 people with whom they could connect for professional development.

### Discussion

The Phase 2 quasi-experimental quantitative design aimed to advance our understanding of volunteer experiences and establish an approach to tracking these experiences over time. With limited exceptions, results confirmed the insights that emerged from Phase 1. Volunteers reported experiencing personal growth, developing specific skills, and having professional networking opportunities.

Measures of cross-cultural empathy and of leadership skills did not increase significantly from pre-test to post-test. One possible explanation is selection bias: ANYTOWN volunteers are selected based on their experience and ability. Evidence for this explanation includes the fact that the volunteers' scores on these and other measures started high at pre-test. Also, average scores on all measures increased from pre-test to post-test, though some increases were not significant. Another possibility is that the measures we selected were not the best ones to assess the constructs of interest.

### Limitations

The MOVE assessment as applied in our study has its limitations. For one, the assessment provided information on the effects of volunteering but could not identify what drove these effects. That said, ongoing implementation of MOVE pre- and post- participation measurement with future volunteer cohorts would allow practitioners and evaluators to observe whether changes in volunteer management are associated with changes in volunteering outcomes.

Another limitation has to do with possible bias in the use of post-test-only measures. In the ANYTOWN assessment, we administered three of the quantitative scales only after volunteers had completed their service. Volunteers' perceptions after service can be subject to bias. For instance, if volunteers enjoyed their experience, they may be more likely to report that they experienced specific impacts even when they did not. To counter this bias, practitioners who use the MOVE assessment can use measures that

can assess change both before and after volunteering, as we did with other scales in Phase 2 testing.

Another limitation is associated with the small number of volunteers we assessed in Phase 2. When using traditional parametric statistics to compare changes in some outcome over time, small participant numbers decrease the likelihood of identifying changes, especially small ones. Our sample size may have been too small to enable us to detect changes that took place among volunteers. Ideally, future applications of the MOVE assessment quantitative phase would involve larger samples with greater statistical power. Alternatively, evaluators may wish to consider the use of nonparametric statistics, which can, in some cases, assess change in smaller samples. This solution may be preferable in organizations like ANYTOWN whose typical volunteer numbers result in underpowered samples.

Average post-test responses on the professional development measure suggest that volunteers agreed that their service provided networking opportunities. They reported meeting an average of 10.21 people with whom they could connect for professional development.

For a free guide on implementing MOVE in your program, contact Ignacio D. Acevedo-Polakovich at [idad@msu.edu](mailto:idad@msu.edu).

## Improving the Volunteer Experience

Results of the two-phase MOVE assessment have helped ANYTOWN program administrators manage volunteer training and support to target the experiences volunteers find useful. For instance, volunteer management and support that once focused solely on supporting volunteers' work with youth now also highlight opportunities for volunteers to network and connect with each other.

Although our findings are specific to ANYTOWN, the MOVE assessment can be helpful to other OST programs who wish to better understand and support their volunteers. We designed the MOVE assessment to be replicated in other OST settings. Phase 1 of MOVE, in particular, is readily replicable with the resources available in many OST settings. We did leverage resources available to our university-affiliated evaluators to conduct formal qualitative analyses. However, OST practitioners without university support can use other less formal—yet still rigorous—qualitative methods. For example, Stacy and colleagues (2018) have described Youth Generate and Organize (Youth GO), a structured participatory process that engages participants in data collection and analysis. This process, which can be implemented with the resources available in most OST programs, can be adapted to document volunteers' perspectives on their experiences.

MOVE's quantitative Phase 2 may be more accessible to OST programs that have internal or external evaluation capacity. Programs that are developing this capacity have many tools at their disposal. For example, OST practitioners can use such online tools as QuestionPro or SurveyLegend to develop their own pre- and post-test surveys of volunteer experiences. Then they can use the data they collect to improve the quality of the volunteer experience.

One caution for practitioners and evaluators who might want to adopt MOVE is to avoid watering down the process. The demands of running OST programs can lead staff to modify evaluation strategies in ways that compromise their utility. For MOVE to render useful results, program staff must understand how its strategies are tied to the utility of the findings, which in turn is tied to program improvement—in this case, better experiences for volunteers.

Despite the fact that volunteers are crucial to the success of many OST programs, little research or evaluation has examined their experiences. Monitoring the experiences of volunteers using MOVE or a process

like it is a key first step in empowering their success with the program and their impact on participants. Programs that understand the experiences of their volunteers can use this understanding to improve their volunteer management, which can in turn significantly improve the experiences of participating youth.

## References

- Acevedo-Polakovich, I. D., Beck, K. L., Hawks, E., & Ogdie, S. E. (2016). Toward a relevant psychology of prejudice, stereotyping, and discrimination: Linking science and practice to develop interventions that work in community settings. In A. N. Alvarez, C. T. H. Liang, & H. A. Neville (Eds.), *The cost of racism for people of color* (pp. 317–338). American Psychological Association.
- Brennan, M. A. (2005). Volunteerism and community development: A comparison of factors shaping volunteer behavior in Irish and American communities. *Journal of Volunteer Administration*, 23(2), 20.
- Brennan, M. A. (2007). Placing volunteers at the center of community development. *International Journal of Volunteer Administration*, 24(4), 5–13.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M., & Hanson, W. (2003). Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 209–240). Sage.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113–126.
- Durlak, J. A., Mahoney, J. L., Bohnert, A. M., & Parente, M. E. (2010). Developing and improving after-school programs to enhance youth's personal growth and adjustment. *American Journal of Community Psychology*, 45, 285–293.
- Eisner, D., Grimm, R. T. Jr., Maynard, S., & Washburn, S. (2009). The new volunteer workforce. *Stanford Social Innovation Review*, Winter 2009, 32–37.
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105–112.
- Herrera, C., Grossman, J. B., Kauh, T. J., & McMaken, J. (2011). Mentoring in schools: An impact study of Big Brothers Big Sisters school based mentoring. *Child Development*, 82(1), 346–361.

- Mahoney, J. L., Parente, M. E., & Zigler, E. F. (2010). After-school program participation and children's development. In J. Meece & J. S. Eccles (Eds.), *Handbook of research on schools, schooling, and human development* (pp. 379–397). Routledge.
- McWhirter, E. H., & McWhirter, B. T. (2015). Critical consciousness and vocational development among Latina/o high school youth: Initial development and testing of a measure. *Journal of Career Assessment*, 24(3), 543–558.
- Nagda, B. R. A., & Zúñiga, X. (2003). Fostering meaningful racial engagement through intergroup dialogues. *Group Processes & Intergroup Relations*, 6(1), 111–128.
- Peterson, N. A., Peterson, C. H., Agre, L., Christens, B. D., & Morton, C. M. (2011). Measuring youth empowerment: Validation of a sociopolitical control scale for youth in an urban community context. *Journal of Community Psychology*, 39(5), 592–605.
- Smith, D. H. (2016). Volunteering impacts on volunteers: Immediate positive emotional-cognitive effects and longer-term happiness/well-being effects. In D. H. Smith, R. A. Stebbins, & G. Grotz (Eds.), *The Palgrave handbook of volunteering, civic participation, and nonprofit associations* (pp. 1312–1330). Palgrave Macmillan.
- Stacy, S. T., Acevedo-Polakovich, I. D., & Rosewood, J. (2018). Youth GO: An approach to gathering youth perspectives in out-of-school time programs. *Afterschool Matters*, 28, 34–43.
- Thomas, D. C., Liao, Y., Aycan, Z., Cerdin, J. L., Pekerti, A. A., Ravlin, E. C., Stahl, G. K., Lazarova, M. B., Fock, H., Arli, D., Moeller, M., Okimoto, T. G., & Van De Vijver, F. (2015). Cultural intelligence: A theory-based, short form measure. *Journal of International Business Studies*, 46(9), 1099–1118.
- Wang, Y. W., Davidson, M. M., Yakushko, O. F., Savoy, H. B., Tan, J. A., & Bleier, J. K. (2003). The scale of ethnocultural empathy: Development, validation, and reliability. *Journal of Counseling Psychology*, 50(2), 221–234.
- Wilson, J., Son, J., Smith, D. H., & Grotz, J. (2016). Longer-term volunteering impacts on volunteers and association members/participants. In D. H. Smith, R. A. Stebbins, & G. Grotz (Eds.), *The Palgrave handbook of volunteering, civic participation, and nonprofit associations* (pp. 1284–1311). Palgrave Macmillan.



# Teens in a Digital Desert

## Digital Media Literacy in an Arizona OST Program

**Andrew Bernier and Rick H. Fowler**

The education landscape, both in and out of school, has shifted dramatically, during the COVID-19 pandemic, to digital learning. This shift has compounded the need for digital media literacy, a wide-ranging and often-changing concept that encompasses the competence to use technical equipment, intelligently consume and process information, and create and share digital media (Heitin, 2016). Even as young people spend more hours in front of a screen than before, they are subjected to more media applications and outlets, from podcasts to videos, pictures, and infographics. These diverse media options are a rich digital landscape for youth to navigate and to which they can potentially contribute.

Open-access social media, such as YouTube and Instagram, enable free and nearly limitless content hosting and sharing. Young people use these resources to share ideas and even create school projects. Perhaps the biggest evolution of multimedia is that most adolescents now have mini production studios in their pockets. Their smartphones have microphones, cameras, and basic media editing ability, along with in-app buttons for instant content sharing. Creation and distribution of media is no longer constrained by exorbitant equipment costs or studio access. From being a one-way street of consumption of television

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or radio broadcasts, media participation has become a two-way street.

Intermixed with the media friends, family, and now teachers share with teens are advertisements, political messages, and sometimes inaccurate information. As commercial and political interests increase media bias and as “fake news” has become a consistent slogan, both adults and young people struggle to interpret media messages. Media educators and academics have argued that media production is as critical a component of digital literacy as is the deciphering of messages (Buckingham, 2003).

Programs that have risen to the call to foster digital media literacy through media production range from career pathway development and journalism training to engagement of underserved youth in community service projects. Many organizations cover all of these characteristics in ways that respect the needs of their communities and host institutions, as we learned in conversations with them when we were building our own program. Radio Rookies, for example, is an afterschool and summer program out of National Public Radio affiliate WNYC in New York City. Dayton Youth Radio, part of radio station WYSO, offers workshops in schools. RadioActive, a program of KUOW in Seattle, hires youth to serve in media production posts, as does independent YR Media in the San Francisco area. BAYCAT, also in San Francisco, offers afterschool programming.

Our program, SPOT 127 in Phoenix, Arizona, also fosters digital literacy through multimedia production. SPOT 127 facilitates semester-long courses twice a week, offers summer boot camps and continuing courses over the summer, and provides in-school workshops. This article describes how SPOT 127 helps fill the void left by most schools’ inability to teach digital media literacy by empowering participants to create their own digital media products.

## Digital Media Literacy as a 21st Century Skill

Ever since digital media production emerged as a do-it-yourself creative outlet, young people have taken advantage of the easy-to-use technology to create novice productions (Kafai et al., 2019; Knobel & Lankshear, 2010). They learn to use the technology mostly outside of school, for example, by accessing instructional YouTube videos.

When young people see peers interacting digitally, and when they perceive that digital media offer more pressing content than schools do, they may

neglect academic activities—much as schools have been neglecting digital media trends. As Buckingham (2015) points out, “Outside school, children are engaging with these media, not as technology but as cultural forms” (p. 22). Using interactive digital media in education means teaching young people to grapple with these cultural forms (Buckingham, 2015).

The call to teach media literacy has grown louder as digital literacy has been recognized as a critical 21st century skill; advocates hope that this recognition will help usher media literacy into school curricula (Jenkins et al., 2009). However, legitimate barriers do remain. Many schools are not equipped to foster media literacy through media production, as they lack access to recording and editing technology and their teachers are not skilled in digital media production. Furthermore, digital literacy has to compete with established subjects that are included in high-stakes standardized testing, while media literacy is not. In fact, “the use of technological applications and representations is generally banned from testing,” so that students’ digital media knowledge and skills cannot be assessed by these tests (Dede, 2009, p. 3).

Although digital media production has been slow to find space in traditional curricula and assessments, some organizations have tried to accelerate inclusion. The education organization and advocacy research group Battelle for Kids assembled the Partnership for 21st Century Learning, a robust network of states, businesses, education leaders, and school districts, to identify 21st century skills. Recognizing “that all learners need educational experiences . . . for success in a globally and digitally interconnected world” (Battelle for Kids, 2019, p. 2), the partnership identified four skill categories:

- Key subjects and 21st century themes cover the traditional subject areas plus a focus on such modern themes as health, economics, and environmental health.
- Learning and innovation skills include collaboration, critical thinking, creativity, and similar skills.
- Life and career skills encompass, for example, social and emotional competence, adaptiveness, and leadership.
- Information, media, and technology skills include information literacy, media literacy, and communications technology literacy.

Battelle for Kids (2019) makes the case that today’s environment, “marked by access to an abundance of

information, rapid changes in technology tools, and the ability to collaborate and make individual contributions on an unprecedented scale” (p. 2), makes digital media literacy a critical asset for 21st century success.

Kellner and Share (2019) point out that media literacy is essential for “education and citizenship today” (p. xiv). They insist that critical thinking skills, coupled with flexibility and the ability to participate in new media, are necessary “to empower students and citizens to critically read media messages and produce media themselves in order to be active participants in a democratic society” (p. xiv).

Though rapid changes and exciting innovations in media technology help push creativity, the diversifying media landscape can leave behind both young people who fail to keep up with new media and schools that fail to improve their digital media instruction. Individuals and institutions need to be nimble and adaptable to new technologies, as opposed to being thoroughly trained on the technology of the day.

## Program Context

When we began in 2012, SPOT 127 held critical media literacy as an ideal, but our mission emphasized training participants in media production in order to amplify their voices and engage them in community service. As the media landscape has grown more turbulent, we recognized the need to use media production as a means to foster digital media literacy.

SPOT 127 works as a public service to teach digital media production skills to high-school-age teens in communities of need across the Phoenix metropolitan area. We have grown from a modest mentorship program to a robust nonprofit operating two standalone centers that offer free, comprehensive afterschool sessions. SPOT 127 also facilitates workshops in high schools across the metro area. Our mission is to empower teens to find their voices and engage with their communities through project-based curricula offering hands-on training in digital photography, video, audio production, script writing, storytelling, and social media—skills that are vital for success in today’s information economy.

Though rapid changes and exciting innovations in media technology help push creativity, the diversifying media landscape can leave behind both young people who fail to keep up with new media and schools that fail to improve their digital media instruction.

Although technology accessibility and training constitute the content, our culture focuses on five areas of youth support:

- **Compassion.** Everyone who comes in the door is given attention, love, and support. This environment breeds creativity, as participants are not afraid to share ideas and try new things.
- **Inclusivity.** SPOT 127 welcomes all high school students, no matter their demographic characteristics. We celebrate our diversity by telling stories about communities that are often marginalized.
- **Opportunity.** At a basic level, access to technology creates opportunities. On a deeper level, the process of media creation opens opportunities to improve academic performance and explore career and educational paths. We also expose participants to new experiences such as visiting cultural spaces and learning from local professionals.
- **Quality.** SPOT 127 is a quality program, from the staff, tools, and training we offer to the media participants create. We invest the time and attention participants need to produce work that can have an impact.
- **Personal growth toward self-actualization.** Creating media is a transformative process, not only in terms of the final product, but also in terms of participants’ outlook on their own lives.

SPOT 127’s participant demographic is majority Latinx, with family incomes below 150 percent of the federal poverty level. As an alternative to risky behavior, SPOT 127 serves as a safe and productive outlet for young people who are not inclined to participate in school extracurricular activities, which are typically dominated by sports programs.

The afterschool program in our two centers provides an average of 48 contact hours each semester: two days per week, two hours per day, for an average of 12 weeks. Our staff consists of five full-time members and several part-time production assistant interns. The executive director oversees our relationship with Rio Salado College and leads our financial development and community engagements. The student success specialist supports



participants and families and oversees administrative needs. The editorial instructional manager acts as the editor-in-chief, overseeing student projects, developing curricula, and managing the two instructors. These three positions rotate between our two Phoenix metro locations. Each site has its own instructor, a media professional with an education background. The instructors have the most direct interaction with program participants and are most visible in the communities; they also recruit students from local schools.

On a typical day, participants arrive anywhere from an hour before programming begins to a few minutes late because of long commutes on multiple bus lines. Our dedicated student success specialist greets them at the door and gets them signed in. Then participants are free to talk, do homework, and grab a bagged meal provided by the local food bank. Class starts a few minutes after 4 p.m. The instructor takes 10 to 15 minutes to describe the

needs for the day, outlining a project description on a whiteboard or walking through steps of an editing program on a monitor while participants follow along on laptops or desktops. Meanwhile, our paid production assistants, who are program graduates, set up needed equipment. As soon as the instructor wraps up, participants are “on”: formulating and pitching story ideas, writing scripts, setting up production and recording, or editing, depending on where they are in the semester. The session ends at 6 p.m.; before leaving, participants update their progress in SPOTedit, our own pitch site and project tracker.

In addition to technical skills and media literacy competence, participants gain critical thinking, leadership, and 21st century skills to put them on a path to higher education and lifelong success. We do not track high school graduation or college placement data; anecdotally, we rarely see students drop out of high school, in a county where the high school graduation rate is 78 percent (Arizona Department of Education, 2019). Typically only one or two seniors out of 20 to 25 in a given year elect not to pursue higher education, compared to a statewide average of 55 percent enrollment in postsecondary education (Expect More Arizona, 2020). Six graduates, all women, have pursued multimedia production or journalism and are

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currently working for media outlets as either interns or full-time employees.

SPOT 127 occupies an interesting position compared to the local high schools that can afford to offer media and journalism classes. In school, media or journalism electives are typically available only to juniors and seniors, and they consume valuable credit time. SPOT 127 gives open access to all high school students without forcing them to choose between classes offered at their school. Across our two locations and in-school workshops, SPOT 127 has served more than 1,000 young people since 2012; we now average more than 200 participants a year.

Many participants return to SPOT 127 after their Level 1 semester to enroll in Level 2 and Level 3 courses. On pre- and post-participation surveys, participants report increases in journalism, audio, and video production skills averaging more than 3 points on a 10-point scale.

In open-ended comments, they have emphasized that SPOT 127 is a fun and safe place to be, for example:

- “I liked all the friendliness and support from each and every one working there. I learned a lot to do with editing and video. I really enjoyed all the hands-on projects we did and how each was different than the other.”
- “I made friends and found something I want to do as a profession.”
- “I absolutely loved it and benefited so much by coming to SPOT. It’s been incredible to be part of a program so welcoming and patient with us. I’m really glad I learned different things such as editing, interviewing, and photography.”
- “SPOT 127 has taught me more than just audio and video editing. It has allowed me to relax and become more social and more confident in myself.”

### Unique Opportunities

According to a 2018 *New York Times* article, high school newspapers have been forced to remove pieces that were critical of the school administration or that administrators thought ran counter to local beliefs (Peiser, 2018). By contrast, SPOT 127 is a public service program offered through Rio Salado College and tethered to NPR member station KJZZ. We are unfet-

tered by school administration oversight when teaching journalistic practices and vetting participants' products. We avoid censorship by publishing all student pieces on our website and social media feeds. The highest-quality stories are featured on our homepage and sometimes on KJZZ.

Although new participants focus on production and editing skills, more advanced participants learn journalistic practices such as a newsroom-style pitch process. The ideas young media producers pitch often are reactions to national events or themes. We rarely reject story ideas; rather, we help participants frame how their big-picture themes are relevant to being a teenager today, to their communities, or to how they perceive their futures. Our editor often asks groups who are pitching ideas, "How can we bring this home?" For example, after the 2018 school shooting in Parkland, Florida, one group wanted to discuss how schools were tightening security. We steered that group to investigate gun culture in Arizona, how it affected their own high schools, and how they felt about their schools' preparedness. Another group wanted to talk about water conservation, a big topic in the desert. We helped that group frame the issue as "Do I want to grow up and maybe have a family in a place with constant water insecurity?"

We teach participants to find vetted statistics or published work to support their observations so that they become comfortable with pairing opinion and grounded material. Part of digital literacy for our young people, who tend to settle for one of the first sites that result from an initial web search, is learning to identify credible online sources. To teach information literacy competence (Heitin, 2016) early in the Level 1 course, we have participants check the credentials of websites that may be presenting biased information. Working alone or in groups, participants search on terms related to their topic of interest, open the first listed website that is not Wikipedia, and go the "about" page. On that page, they identify linked organizations or persons and then do searches on those names, in what we call a "who, then who" exercise. Participants find that such searches tend to reveal elements of bias.

The strongest pieces often find a balance of observation and information rooted in teen perspectives on health, well-being, and community concerns. For example, in one short video, two participants mixed statistics on bullying among LGBTQ+ youth with personal reflection.

The strongest pieces often find a balance of observation and information rooted in teen perspectives on health, well-being, and community concerns. For example, in one short video, two participants mixed statistics on bullying among LGBTQ+ youth with personal reflection. Another group spoke with peers and school counselors about how to foster healthy teen relationships and researched ways to identify abuse. We plan to use these pieces to show participants how to balance personal narrative with larger views on issues affecting teens.

When we have marquee pieces, we submit them to entities that formally recognize youth media. The stories mentioned in the previous paragraph received Emmy awards from the Rocky Mountain National Academy of Television Arts and Sciences. Participant stories have also been honored with Arizona Interscholastic Press Association and Arizona State Fair awards. Although we value these awards as recognition for our

program, they are most important because they build participants' confidence and showcase their talents and competence to external audiences, such as colleges.

Currently we are working with Rio Salado College to provide concurrent enrollment. Rio Salado offers classes whose standards and objectives align, either closely or less formally, with SPOT 127 instructional objectives and the curriculum we have developed over nearly a decade. Participants have expressed interest in earning college credit for completing SPOT 127 courses, just as their peers do in AP classes. This initiative is forcing us to

do something we have never had to do before: grade participants' work. We use established rubrics to assess both work processes and final products in a way that does not disrupt the SPOT 127 experience. For now, early in this discussion, we are treating concurrent enrollment as an opt-in program. We do not impose credit requirements or assessments on young people who are intrinsically motivated to learn media production or just want to have fun.

If SPOT 127 participants choose to go to journalism school, our informal relationship with Arizona State University's Walter Cronkite School of Journal-

ism and Mass Communication supports that choice. Several program graduates are currently attending, and a few have graduated with journalism degrees. As reported in *The Atlantic*, applications and enrollment rates are up at journalism schools across the country. The rise is partially attributed to recent attacks labeling journalism as “fake news” and to students’ desires to share their own stories and help their communities (Harris, 2018). To make college more accessible to program alums, SPOT 127 has secured scholarships through generous gifts from local family foundations. Our student services specialist helps graduates apply for scholarships and follows up to see if they are fulfilling scholarship requirements.

## Lessons Learned

SPOT 127 was originally envisioned as a journalism development program. Although we still aspire to that vision, we learned that we need to be flexible to accommodate the ways in which the communities we serve want to interact with media production. Some participants want to get into journalism—and several have. But others just need a fun and safe space to hang out. If we have space, we take just about every young person who is willing to commit to attending for the whole semester. When participants are not fully prepared for the work, we regularly help with remedial writing skills.

## Fostering Observation, Connection, and Critical Thinking Skills

As we teach participants to be nimble in adapting to new technologies, so we have revisited the SPOT 127 curriculum to adapt to the vastly improved media technology on participants’ phones, which is starting to rival the professional-grade equipment at SPOT 127. Funding to upgrade that equipment can lag behind the need. Sometimes an immediate production need is resolved by using the mini-studios participants bring in every day. We embrace the use of phones, rather than fighting it as schools sometimes do.

However, we find that the bigger task is to train participants to use their eyes and ears. Young people attend SPOT 127 only four hours a week. A snag in shooting or production can

eat valuable time. We therefore train participants to be aware of what they can capture outside of SPOT 127 with their phones. If you see something that could be a “stock” photo for your project, shoot it. If a scene on campus could serve as “B-roll” for your project, record it. If you overhear a conversation with peers or adults on your topic, ask for a three-minute interview and prop your phone against something to stabilize the camera. A piece about fostering healthy teen relationships was greatly enhanced by the producer’s chance interview with a school counselor for a few minutes during lunch. Similar candid moments have been incorporated into pieces that were recognized within the program or won external awards.

For many participants, technical skills come more easily than people skills. Teens are often reticent to interview community members, let alone school staff. So while participants are learning editing software, they also learn soft skills. In their first projects, they interview one another so that they get comfortable with asking questions, listening, and finding the best follow-up questions. They learn to connect by email and phone, to write thoughtful questions in advance, and to ask those questions as a way to cultivate their own primary sources of information rather than leaning on popular material. Those human-to-human skills, along with storytelling ability and fundamental professional characteristics, take more time and attention to develop than the technical skills do.

Most importantly, we have learned that young people want to use technology for communication and entertainment, but they are rarely encouraged to express themselves in constructive ways that use their education and technological skills. As the media landscape becomes more varied and fast-paced, we continuously shift our programming to build critical thinking skills. Through media creation and analysis, our teens come

away with heightened awareness of the influence content-makers have on what the public perceives as authenticity and truth. They are better prepared to combat the current atmosphere of bias in media news and skepticism about science. We do not yet measure whether participants’ critical thinking skills improve, but we do see participants in higher-level courses beginning to question whether what they are seeing is

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authentic or is merely pandering to an audience to increase likes and followers.

### ***Modeling Professional Media Production***

We have seen firsthand that teenagers acquire most of their information from social media and sometimes from national news outlets. They may see local television news every now and then in passing, but traditional television and radio news, let alone print news (even online), fall behind social media. When we ask Level 1 participants to brainstorm topics for their media projects, they often focus on national stories and try to replicate the presentation and content they see in national news. They have little exposure to or knowledge of local news content and style.

SPOT 127 introduces participants to local news. As a starting point, our locations also serve as local bureaus for KJZZ reporters. Participants walk past reporters working in their offices as they enter the building. For most, this is their first exposure to news production. From the reporters' large white boards scrawled with ideas and pitches, they learn that anything can spark a story. In contrast to responding to a prompt at school, developing an open-ended news pitch must fulfill the needs of human-centered storytelling: It must explore a problem. Participants' awareness of what makes something newsworthy is fostered by the presence of a real newsroom whose sense of urgency is driven by the community's need to hear the story as soon as possible—in contrast to the artificial nature of school deadlines. This organic urgency, coupled with occasional workshops in which KJZZ reporters share story development strategies or technical tricks, develops participants' digital literacy by helping them understand what stories must be told. We tell young people that, if they want to work on a topic in the national limelight that already has thousands of voices and opinions, fine—but who is going to tell the story of their family business or of something they see going on down the street? As we repeat our “bring it home” mantra, we show our young media producers that the untold stories swirling around them are valid.

Recently, a participant who splits her school day

between a traditional high school and a nursing program at a career and technical school was struggling to come up with a story idea about anxiety. Her editor asked why she always came to SPOT 127 in scrubs. She described the stress of needing to succeed in school while simultaneously becoming workforce ready and participating in extracurricular activities. She had never considered that this common experience among teens was newsworthy, but her editor assured her that it was. Developing the piece took some back-and-forth in the pitch process and during scripting, but eventually the idea turned into a touching and timely piece about teens' struggle to balance expectations and the effect on their mental health.

### ***Pulling Back the Curtain on the Creative Process***

The high-definition aesthetics of entertainment-driven news make the genre appear slick, costly, and, in the eyes of consumers, high quality. Professional graphics give credibility to the news people consume. As SPOT 127 participants work with the same software packages that those media creators use, their hands-on experience demystifies the dazzling visual components of information design.

On their first day of learning to use Adobe Premiere Pro video editing software, participants start to use built-in title effects to animate their own content. A curious and transformative thing happens: They start noticing these effects everywhere. They easily recognize these standard text animations in professional media and soon realize that they could produce the same effects.

That small acknowledgment invites them inside the community of content creators and shows them a source of their own power to express their voice. Understanding the technical tricks professional creators use enables participants to analyze critically the style of presentation and how it affects the message. Our instructors report every semester that, when participants are introduced to title effects, they come back the next week having seen their new knowledge at work in the world. This awareness empowers them to create their original works.

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Similarly, when participants use our green screen in conjunction with special effects in the editing software, they are essentially peeking behind the curtain of the billion-dollar film industry. Often someone gasps, “Oh, my gosh, that’s it?” They are stunned to learn that putting an exciting background behind an actor is virtually a one-step process. Now, they watch the latest Marvel movie with the awareness that they themselves can produce similar effects. Their relationship to media changes profoundly as they cross the threshold from consumer to creator.

## Digital Media Literacy and More

The definition of digital media literacy changes as often as do the ever-fluid media landscape and the supporting technology. Youth media centers are doing what they can, not just to keep up, but to help young people get ahead as producers of original content. SPOT 127, in serving Phoenix area youth in communities of need, continues to blend foundational skills, technical skills, and critical thinking by fostering an authentic creator space in which participants can tell their own and their communities’ stories.

Empowering young people to create original digital content and to be savvy, critical consumers of media is not enough to ensure success. SPOT 127 therefore also empowers participants to complete high school, connects them to community resources, assists them in securing internships and scholarships, and provides them with a pathway to college or career leveraged by 21st century critical media skills. We aim both to have an impact in greater Phoenix and to serve as a model to others by shaping, empowering, and emboldening the next generation of leaders as media storytellers.

## References

Arizona Department of Education. (25 October 2019). *Cohort 2018 four year graduation rate data*. <https://www.azed.gov/accountability-research/data/>

Battelle for Kids. (2019). *Framework for 21st century learning*. [http://static.battelleforkids.org/documents/p21/P21\\_Framework\\_Brief.pdf](http://static.battelleforkids.org/documents/p21/P21_Framework_Brief.pdf)

Buckingham, D. (2003). *Media education: Literacy, learning, and contemporary culture*. Malden, MA: Polity.

Buckingham, D. (2015). Defining digital literacy: What do young people need to know about digital media? *Nordic Journal of Digital Literacy, 2006–2016*, 21–34. <https://www.idunn.no/file/pdf/66808577/#page=21>

Dede, C. (2009, July). *Comparing frameworks for “21st century skills.”* [http://sttechnology.pbworks.com/f/Dede\\_\(2010\)\\_Comparing%20Frameworks%20for%2021st%20Century%20Skills.pdf](http://sttechnology.pbworks.com/f/Dede_(2010)_Comparing%20Frameworks%20for%2021st%20Century%20Skills.pdf)

Expect More Arizona. (2020). *Post high school enrollment*. Expect More Arizona and Center for the Future of Arizona. [https://www.expectmorearizona.org/progress/post\\_high\\_school\\_enrollment/?location=State::Arizona](https://www.expectmorearizona.org/progress/post_high_school_enrollment/?location=State::Arizona)

Harris, A. (2018, August 9). Student journalism in the age of media distrust. *The Atlantic*. <https://www.theatlantic.com/education/archive/2018/08/student-journalism-in-the-age-of-media-distrust/567089/>

Heitin, L. (2016, November 8). Digital literacy: An evolving definition. *Education Week, 36*(12). <https://www.edweek.org/ew/articles/2016/11/09/what-is-digital-literacy.html>

Jenkins, H., Purushotma, R., Weigel, M., Clinton, K., & Robison, A. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. MIT Press.

Kafai, Y., Fields, D. A., & Searle, K. A. (2019). Understanding media literacy and DIY creativity in youth digital productions. In R. Hobbs & P. Mihailidis, (Eds.), *The international encyclopedia of media literacy*. John Wiley & Sons. <https://doi.org/10.1002/9781118978238.ieml0058>

Kellner, D., & Share, J. (2019) *The critical media literacy guide: Engaging media and transforming education*, Vol. 2. Brill Guides to Scholarship in Education.

Knobel, M., & Lankshear, C. (Eds.). (2010). *DIY media: Sharing, creating and learning with new media*. Peter Lang.

Peiser, J. (2018, July 1). Hard news. Angry administration. Teenage journalists know what it’s like. *New York Times*. <https://www.nytimes.com/2018/07/01/business/media/student-journalism-school-newspaper.html>



# Group Mentoring and Identity Formation for Young Men of Color

## A Case Study

### Kevin Pribnow

America's schools are re-segregating at an alarming rate (Kozol, 2005; Stancil, 2018). Over the past 40 years, many metropolitan communities have reversed progress made toward integration following the 1954 Brown decision. The number of schools where less than 40 percent of students are White has almost doubled between 1996 and 2016, according to the National Center on Educational Statistics (Stancil, 2018).

During that same time, the percentage of Black students attending a segregated school rose from 59 to 71 percent (Stancil, 2018). Segregation has been shown to cause deficits in social and economic supports for students of color. Schools serving predominantly Black students often have deteriorating buildings that are staffed with inexperienced teachers

using outdated, Eurocentric textbooks (Kozol, 1991; Putnam, 2015). In addition, teachers in racially segregated schools are often unprepared to properly nurture students dealing with the trauma caused by racial segregation and poverty (Noguera, 2003; Tatum, 2005). Ultimately, the educational inequalities faced by students of color result in a higher risk for negative life outcomes such as school dropout, economic poverty, and incarceration (Noguera, 2003).

Although schools themselves cannot address re-segregation, they can mitigate some of the detrimental effects of racial inequalities. Students of color internalize racial inequalities in educational environments at critical times in their identity formation. This internalization can lead to attitudes and behaviors that

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contribute to academic underperformance, most notably in boys and young men of color (BYMOC; Noguera, 2009; Tatum, 2005). As educators search for ways to close academic achievement gaps, they need to consider the role of both schools and out-of-school time (OST) programs in developing healthy racial identities in BYMOC. Research shows that students with strong ethnic identities are better suited than others to meet both academic and social challenges (Sue & Sue, 2002).

Community-based and school-based OST programs targeting BYMOC have been operating in the U.S. for decades. In the 1990s, these programs shifted their focus from the prevention of dangerous behaviors to more holistic models (Gilgoff & Ginwright, 2015). A literature review of OST models for BYMOC found three main program structures: extracurricular activities, mentoring, and rite of passage programming (Woodland, 2008). All three were shown to be effective in aiding positive identity formation for BYMOC (Woodland, 2008). The formation of a positive afterschool group identity can help promote desirable outcomes such as higher self-esteem, better work habits, and fewer behavior problems in classrooms (Sánchez et al., 2016; Woodland, 2008). More school districts than ever are recognizing the benefits seen in OST programs and are funding afterschool mentoring groups to support BYMOC (DuBois et al., 2011).

This case study explores the group mentoring program Natural Circles of Support (NCOS), which combines school-based and community-based support to mitigate the risks faced by BYMOC in urban school districts. As a classroom teacher at a NCOS school, I taught several program participants. After seeing the impact NCOS had on participants' lives, I conducted this qualitative case study into NCOS to discover how its community circle of support met the needs of BYMOC.

## Background: Identity Development and Mentoring for BYMOC

### *Racial Identity Development in BYMOC*

Researcher William Cross developed his Black racial identity model in 1971 (and updated it in 1991) to theorize about the stages of identity development

through which Black individuals progress. His model features five stages: pre-encounter, encounter, immersion, internalization, and commitment (Cross, 1991). Although these stages are outlined sequentially, they do not necessarily occur in a linear fashion. Healthy racial identity development is achieved when Black individuals progress through the stages and end with internalized positive feelings about themselves, their culture, and other racial groups (Benjamin et al., 1998).

The first stage in Cross's theory is the pre-encounter stage, in which the individual is surrounded by the dominant culture and attempts to assimilate to it. In this stage, children act on the world and receive messages back from the environment that either confirm or disconfirm their identity struggles (Stevenson et al., 1997). In the United States, culturally and economically marginalized communities struggle to forge their own positive identities against presumptions of inferiority (Adams et al., 2001). This issue is common in schools, where the messages students receive often are based on the color of their skin. BYMOC are more likely than any other group in American schools to be punished, to be categorized for special education, and to experience academic failure (Lee, 1996; Noguera, 2009). Educators have grown so accustomed to seeing Black male students being punished, failing,

and dropping out that these outcomes are barely regarded as cause for alarm (Noguera, 2009). BYMOC in the pre-encounter stage can internalize these adult expectations, which then manifest themselves in academic underperformance, in the phenomenon Claude Steele (2011) calls *stereotype threat*. Stereotype threat causes individuals to perform based on their perceptions of others' expectations (Steele, 2011).

Educational environments with low expectations for BYMOC cause students to fulfill the outcomes predicted by the stereotypes.

Another result of failure to assist BYMOC in their identity development is oppositional identity, in which behaviors seen as authentically Black are highly valued and behaviors associated with White individuals are viewed with contempt (Tatum, 1997). The behaviors associated with Whiteness include academic success,

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according to Fordham and Ogbu (1986). Their ethnographic study of Black students' academic success found that students who were academically successful in the pre-encounter stage became less so as they entered adolescence (Fordham & Ogbu, 1986). At this age, students began to associate academic success with "acting White" and feared loss of acceptance by their Black peers. Often Black students who remained academically successful developed a strategy called *racelessness*, in which they assimilated into the dominant group by de-emphasizing characteristics that might identify them with their ethnic group (Fordham & Ogbu, 1986).

Understanding the experiences of BYMOC through the early stages of Cross' racial identity theory can help educators support BYMOC in avoiding negative outcomes associated with improper identity formation. Honoring the worldview of BYMOC in the pre-encounter stage by using student-centered approaches to learning and by surrounding students with positive images of African Americans have been shown to contribute to positive identity development (Baggerly & Parker, 2005; Lee, 1996). As schools have been slow to adapt culturally responsive practices, mentoring programs have proliferated as an intervention against negative outcomes for BYMOC (DuBois et al., 2011).

### ***Mentoring for BYMOC***

Research on OST mentoring programs found that BYMOC have a stronger racial identity when they can identify a role model in their life (Yancey et al., 2002). Rhodes and DuBois (2008) suggest that mentoring relationships contribute to positive youth outcomes by aiding in social and emotional, cognitive, and identity development. Strong mentor relationships can help young people develop a sense of identity that is associated with self-confidence and that helps them meet academic and social challenges (Martinez & Dukes, 1997; Sue & Sue, 2002).

In 2014, President Barack Obama introduced the My Brother's Keeper initiative to promote mentoring for BYMOC. In a mixed-methods study cited by the initiative (DuBois et al., 2011), researchers conducted over 120 interviews and analyzed more than 3,000 surveys. They found that mentoring helped mentees express their strengths and provided

support through adversity (DuBois et al., 2011). The study also found that one anchoring relationship is often not enough to help young people thrive; however, mentoring can help illuminate a child's existing social web. Studies also found that a close mentor-mentee relationship led to an increase in coping skills and self-esteem (My Brother's Keeper Alliance & MENTOR, n.d.). In addition, participation in youth mentoring programs led to lower measures of emotional and behavioral problems (Deutsch & Spencer, 2009; Sánchez et al., 2016).

Research regarding the connection between mentoring and academic success is less clear. An evaluation of mentoring programs funded by the U.S. Department of Education concluded that its Student Mentoring Program did not have significant effects on academic outcomes (Bernstein et al., 2009). These findings have been challenged by people who claim that mentoring relationships lead to benefits that affect academic behaviors but are difficult to measure (Wyatt, 2009). Qualitative studies found that students in mentoring programs became more engaged in school and were more motivated to do well (Wyatt, 2009).

Although consistent evidence supports the positive outcomes of mentoring relationships, programs have had limited success in fostering such relationships (Deutsch & Spencer, 2009; Sánchez et al., 2016). The quality of the relationships depends on program structures such as the method for pairing mentors and mentees, the environment in which the relationship is developed, and the duration of the interactions (Sánchez et al., 2016). Important factors for positive

youth outcomes included rapport-building activities, safe spaces, mutual support, and trust (Deutsch & Spencer, 2009).

Group mentoring provides unique opportunities to mitigate some of the issues of one-to-one mentoring programs. Group mentoring can save resources and can create stability to avoid the detrimental impact of "drive-by" mentoring (Struchen &

Porta, 1997). In groups, participants can share similar problems and observe how peers are handling similar situations. Groups foster empathy, caring, and respect for others, all of which promote the self-confidence that enables young people to change their behavior (Struchen & Porta, 1997). Peer support groups create

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a miniature society in which members can feel a sense of belonging. Group association is strengthened using rituals unique to that social setting. Psychologists explain that group rituals “allow an individual to participate fully in the social world by affiliating with fellow group members, reaffirming one’s position in the group, and sharing in important social conventions and cultural knowledge” (Hobson et al., 2017, p. 270).

## Methodology

My investigation of the local NCOS circle in fall 2018 used case study methods. I collected qualitative data in face-to-face interviews with the youth advocate who led the program, the school principal, a classroom teacher involved in NCOS, and a student, age 10, whom I interviewed with his parents. I conducted four observations of afterschool group mentoring sessions. In addition, I collected anecdotal data in my position as an educator in the school that partnered with NCOS. In my two years at the school, I had several students who participated in the program. Regular contact with the youth advocate about specific students piqued my interest in the program. I wanted to know what made NCOS an effective group mentoring program.

## Program Context

NCOS has been operating in Wisconsin schools since 2005. Created as a University of Wisconsin Extension program, NCOS currently operates as a nonprofit organization with programming in more than 20 schools across eight school districts (Natural Circles of Support, n.d.). NCOS has been shown to be an effective approach to reducing school behavioral referrals for students of color (Kalk Derby, 2017). Although specific support structures and group demographics vary based on the needs of the school community, NCOS often provides schools with a youth advocate, an adult leader who facilitates weekly afterschool group mentoring sessions called *circles*. The demographics of the circles vary, but most are single-sex and are composed of children of color. Participants typically either are referred by school staff based on perceived needs or are enrolled voluntarily by their families.

The centerpiece of any NCOS implementation is the

youth advocate, who organizes and runs the afterschool circles. In addition to providing afterschool support, youth advocates maintain a presence in the children’s school in a flexible role that allows them to assist in classrooms, provide supervision, and meet with students. This dual presence creates a unique opportunity to bridge the participants’ school and family lives.

This study focuses on the implementation of NCOS in my elementary school, where the program served 20 boys ages 8–11 at the time of my study. Rather than meeting in the school building, the afterschool circle met at a location in the children’s neighborhood. Three times a week for approximately two hours, the boys did their homework, had a snack, participated in the circle time described below, and then played games of their choice until it was time to go home. Three years before my study, NCOS was implemented at the school as a pilot for the district. The success of the pilot led to the program’s expansion within the school, where a girls’ group was added, and to other schools in the district.

## Findings

My interviews and observations suggest that boys in NCOS experienced positive social, emotional, and behavioral outcomes as a result of their participation in the program. All the adults I interviewed described positive school outcomes such as a decrease in disciplinary referrals and an increase in classroom engagement and school attendance. The schoolteacher I interviewed told stories of transformation as a direct result of children’s participation in the circle. For example:

Before NCOS was brought into our school, one of our boys was out of control. When this particular student was a third grader, he would swear, disrespect staff and students, would get into fights, leave the classroom, not come to school, struggled in school, destroy property. After spending three years in Circle of Support, this student left fifth grade with very few, if any, [office discipline referrals], came to school daily, rarely fought or disrespected students and staff, and became a mentor to our younger NCOS students. Academically, he left with all passing grades.

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The teacher also reported on a student who had qualified for special education services due to an emotional behavioral disorder. After he joined NCOS, the student's academic performance and behavior improved; the label was removed, and special education services were no longer required.

Early in the program's implementation, some adults feared that participation in NCOS would be associated with social stigma. Separating out a group of boys who had been determined to need special support could draw unwanted attention to them. However, program observations and interviews revealed that participants took pride in their label as "Circles boys." The afterschool group became a part of their school identity. The youth advocate, Mr. A, explained, "Students' attendance has gotten better because they have a purpose and a reason why they want to come to school and be part of the school community."

My investigation of NCOS revealed three program characteristics that contributed to positive identity association among the participants:

1. The youth advocate served as a shared mentor for the boys.
2. The location of the program in the children's neighborhood allowed participants to build their identities beyond the walls of the classroom.
3. The use of rituals strengthened group identity formation.

### ***The Role of the Youth Advocate***

Around the school, NCOS participants were known as "Circles boys" or "Mr. A's boys." Participants accepted these labels as positive largely because of Mr. A and the role he played in their lives. Mr. A was a Black male in his late twenties who was born and raised in the same community as his mentees. He had attended a nearby school system and was continuing his education at a local university. Around the school, he often donned a baseball or stocking cap—something that clearly differentiated him from the classroom teachers. He told the Circles boys stories from his childhood, revealing that he had faced obstacles like the ones they were facing and expressing a strong desire to help them overcome these obstacles. Mr. A had been with NCOS for three years and said that he felt fulfilled in the work.

Observations of the afterschool program revealed the level of relationship that Mr. A maintained with each participant. He asked the boys about specific classroom assignments and inquired about family members' well-being. The interactions with participants showed authentic care for their welfare together with a desire to push them to do more.

Mr. A also developed strong relationships with both parents and teachers. In contrast to the district recommendation that teachers not use their personal phones, Mr. A's phone had multiple contacts for each participant. In his interview, he discussed the importance of communication with families.

Parents play a major role in our success. We have a strong relationship with a majority of parents. Our parents know they can call, text, and reach out to us whenever needed. We ask our parents to commit to attending our parent nights, where we provide strategies for academic support in the home. I think we have excellent connections with our NCOS families.

Participants' appreciation for the care Mr. A provided was evident in their eagerness to be with him and their engagement when he spoke. At school, they would rush out the door for their pull-out reading group with Mr. A; they continually asked for hall passes so they could show him their completed classroom work. The teacher I interviewed reported that inappropriate behavior on the part of a Circles boy could be quickly addressed by a conversation with Mr. A. When asked why, she replied simply, "It's because of the relationship he has with the boys."

### ***The Role of Place***

Afterschool circles took place at the community-oriented policing (COP) house in the children's neighborhood. The house is one of several in the community that serve as safe houses with police officers on site at all times. Though police-run sites often do not feel safe for BYMOC, I saw no evidence of discomfort among the Circles boys. As participants got off the school bus that brought them to the COP house, the two police officers on duty warmly greeted them with high fives and quips that signaled their familiarity with each other.

All the adults I interviewed described positive school outcomes such as a decrease in disciplinary referrals and an increase in classroom engagement and school attendance.

The boys' snack time and circle took place in a part of the house that was formerly a garage, a large, mostly open space with white walls and cement floors. Folding chairs were scattered throughout the room, along with some bins of books and board games. On the walls were posters of African American role models such as Martin Luther King, Jr., and Michael Jordan, as well as student work. When I arrived for my first observation, several boys grabbed my hand, wanting to show me around like young children showing off their room and toys. Clearly the boys were proud of the space and considered it theirs.

The proximity of the COP house to the students' homes added to the sense that it was their place. During one visit, one boy quickly ran across the street to bring over his little brother, who was playing outside. Another flagged down his older sister, who was walking the dog. Participants' home lives were visible from the COP house, and most parents walked to pick up their children. When they did so, Mr. A often offered quick updates, providing a cohesive transition from the program to the home.

Having their own place helped participants solidify their group identity. Only Circles boys went to the COP house after school. Other students at their school were aware of the house but could not attend circles. This exclusivity was a visible point of pride for participants.

### **The Role of Rituals**

My observations revealed a sense of community formed from shared routines unique to the group. Many of these routines were Afrocentric, in keeping with NCOS principles. The first NCOS group, formed in 2005, was called the Kilembe Brotherhood; its participants, fifth-grade boys, discussed the book *Hero with an African Face* (Natural Circles of Support, 2017). The routines of each NCOS circle are co-created with participants, but tribal artifacts and community aspects of the circles retain the Afrocentric focus.

Each NCOS meeting I observed began with a circle meeting governed by a consistent routine. Mr. A got everyone seated and then calmly said, "I'd like everyone's permission to begin the circle." During the moment of silence that followed, the room felt like it

slowed down from the controlled chaos that had existed only moments before. Finally, Mr. A struck a bell and let the timbre spread throughout the space to signal the start of the circle. Next, each child shared how he was feeling at that moment. The boys passed around a talking stick so that only one spoke at a time. This process, which took approximately 10 minutes, felt time-consuming to this classroom teacher; I was used to more transitions. I couldn't determine whether the participants who were waiting were actually listening or simply rehearsing what they would say when it was their turn. Either way, they were quiet for their peers.

After everyone had shared, Mr. A introduced the afternoon's topics, which circle members discussed with continued use of the talking stick. Children had opportunities to share something they were proud of, a problem they had, or a goal for something kind they were going to do for someone else. The questions seemed familiar to the boys, so I concluded that the questions were frequently used to launch discussions. During the sharing time, the rule that only one person could speak at a time

was often broken as participants excitedly blurted out ideas, but the discussion never got out of control. To close the circle, Mr. A paused everyone for a moment of reflection and once again rang the bell. Once the circle time ended, the energy in the room changed almost immediately as the boys began to disperse into self-chosen activities.

My interviewees discussed the importance of this circle time. The program participant I interviewed explained how circle routines were different from school routines, most notably in that "at circles, everyone gets to talk." Mr. A explained that the routines are important for building community: "The circle is a way for everyone to express themselves. It represents our connectedness."

### **Discussion**

In NCOS, targeted mentorship fostered relationships and support structures for BYMOC in the pre-encounter and encounter stages of their racial identity development. These supports came at a crucial time when children can internalize messages of racial inequality

The teacher I interviewed reported that inappropriate behavior on the part of a Circles boy could be quickly addressed by a conversation with Mr. A. When asked why, she replied simply, "It's because of the relationship he has with the boys."

from their educational environments. To counterbalance this trend, Circles boys developed a positive association with NCOS that became part of their identity at school. The initial hesitation over creating a racially separated group was overcome by the program's effectiveness in improving participants' social, emotional, and behavioral outcomes.

Beverly Tatum (1997) touches on the paradox of racial separation in her book *Why Are All the Black Kids Sitting Together in the Cafeteria?*

It might seem counterintuitive that a school ... could improve both academic performance and social relationships among students by separating the Black students for one period every day. But if we understand the unique challenges facing adolescents of color and the legitimate need they have to feel supported in their identity development, it makes perfect sense. (Tatum, 1997, pp. 73–74)

Before young people in the encounter stage of their racial identity development internalize a negative view of their culture, they need supports that honor their culture and world view. Timely intervention may help prevent racial identity problems such as stereotype threat, oppositional identity development, or racelessness. Although NCOS did not explicitly focus on racial identity development, the formation of a group identity may have contributed to a positive identity association as the label "Circles boys" became a point of pride for the participants.

This study revealed three characteristics of NCOS that may have led to a positive identity association in participants: the mentor, the location, and the rituals.

According to the My Brother's Keeper Alliance and MENTOR (n.d), effective mentors should be culturally competent, have a social justice mindset, express care for their community, and have life experiences relevant to the mentees. The fact that Mr. A met these criteria helped him serve as an effective mentor. Most of the adults at the NCOS participants' school, as in many schools in America, were White, middle-class women. It was important for the Circles boys to see themselves in their mentor. Although studies are inconclusive on the role of race and gender matching in mentoring relationships (Liang & West, 2007), it is hard to deny

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the role that match played in Mr. A's effectiveness. Steele (2011) describes how mentors help reduce the effects of stereotype threat by providing an example of overcoming the stereotypes. Mr. A was that example because he looked like his mentees and shared their life experience.

Recruiting such mentors is incredibly challenging. Financial support, whether from partner schools or from other sources, is necessary to attract uniquely talented individuals who can effectively mentor BYMOC groups. The participants in my case study were fortunate enough to have Mr. A as a full-time youth advocate. Other districts may not have the financial resources to provide one full-time advocate per group. However, one youth advocate could facilitate multiple groups from multiple schools. That advocate might be less able to provide personalized support than Mr. A was, but they could still develop the group identity that was so valuable to study participants.

The location outside of the school was a benefit to NCOS participants, particularly because of the distance between the school and the students' neighborhood. Many of the boys' families had never been to their school, located three miles away, and their teachers had never been to the neighborhood. Having their program in their neighborhood extended support into the children's home lives. During pick-up, the COP house became a meeting ground on which parents and Mr. A interacted the way families and teachers typically would at a neighborhood school—a form of communication that was missing when students went home by bus. In these quick interactions, Mr. A let families know how the children were performing in school and shared resources for supporting the children. Even when locating the program in the children's community is not possible, creating a unique space for the group can add to the sense of group identity.

Additionally, group-specific routines can foster group identity by creating an experience that is unique for group members. At school, NCOS participants shared the rituals and routines typically associated with formal education. By contrast, the rituals used in NCOS were unique to them. The most notable ritual was the opening circle, in which all students were given the opportunity to share. This aspect was crucial for group

identity formation. Taking the time for everyone to be heard developed an inclusiveness not typically seen in classrooms, where the discourse is typically controlled by the dominant voices, leaving marginalized students silenced. The circle discussion protocol was extremely effective at both developing a sense of community and enabling all voices to be heard.

## Supporting Identity Development in BYMOC

In these three ways, the afterschool group mentoring program I observed supported the identity development of its BYMOC participants. Participants developed a positive group identity that fostered a sense of belonging, which in turn improved their engagement in school. The quality of the mentoring program relied heavily on the abilities of the youth advocate, Mr. A. Having a mentor whose life experience was similar to their own was part of NCOS participants' identity development. The in-school and afterschool format bridged the participants' home and school lives and helped to fully engage them in their education.

Ultimately schools must work toward culturally responsive instructional practices that nurture the identity development of all students. As they work toward this goal, they can look to emulate the strategies of OST programs that successfully assist BYMOC in their social and emotional development. Teachers and administrators should look at these practices not as specialized interventions but rather as best practices that need to permeate the school day.

## References

- Adams, G. R., Munro, B., Doherty-Poirer, M., Munro, G., Petersen, A. R., & Edwards, J. (2001). Diffuse-avoidance, normative, and informational identity styles: Using identity theory to predict maladjustment. *Identity, 1*(4), 307–320.
- Baggerly, J., & Parker, M. (2005). Child-centered group play therapy with African American boys at the elementary school level. *Journal of Counseling & Development, 83*(4), 387–396. <https://doi.org/10.1002/j.1556-6678.2005.tb00360.x>
- Benjamin, E., Constantine, E., Richardson, T., & Wilson, J. (1998). An overview of Black racial identity theories: Limitations and considerations for future theoretical conceptualizations. *Applied and Preventive Psychology, 75*, 95–99.
- Bernstein, L., Rappaport, C. D., Olsho, L., Hunt, D., & Levin, M. (2009). *Impact evaluation of the U.S. Department of Education's Student Mentoring Program*. Final Report. NCEE 2009-4047. U.S. Department of Education National Center for Education Evaluation and Regional Assistance. <http://ies.ed.gov/ncee/pubs/20094047>
- Cross, W. E. (1991). *Shades of Black: Diversity in African-American identity*. Temple University Press.
- Deutsch, N. L., & Spencer, R. (2009). Capturing the magic: Assessing the quality of youth mentoring relationships. *New Directions for Youth Development, 2009*(121), 47–70. <https://doi.org/10.1002/yd.296>
- DuBois, D., Portillo, N., Rhodes, J., Silverthorn, N., & Valentine, J. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest, 12*(2), 57–91.
- Fordham, S., & Ogbu, J. U. (1986). Black students' school success: Coping with the "burden of 'acting white.'" *Urban Review, 18*(3), 176–206. <http://doi.org/10.1007/bf01112192>
- Gilgoff, J., & Ginwright, S. (2015). Toward more equitable outcomes: A research synthesis on out-of-school time work with boys and young men of color. *Afterschool Matters, 21*, 11–19.
- Hobson, N. M., Risen, J., & Inzlicht, M. (2017). The psychology of rituals: An integrative review and process-based framework. *SSRN Electronic Journal, 22*(3), 260–284. <https://doi.org/10.2139/ssrn.2944235>
- Kalk Derby, S. (2017, October 13). Know Your Madisonian: Outreach specialist finds success with Natural Circles of Support. *Wisconsin State Journal*. [https://madison.com/wsj/news/local/know-your-madisonian-outreach-specialist-finds-success-with-natural-circles-of-support/article\\_07949100-d095-534b-a07d-faa4810d328a.html](https://madison.com/wsj/news/local/know-your-madisonian-outreach-specialist-finds-success-with-natural-circles-of-support/article_07949100-d095-534b-a07d-faa4810d328a.html).
- Kozol, J. (1991). *Savage inequalities: Children in America's schools*. Broadway Paperbacks.
- Kozol, J. (2005). *The shame of the nation: The restoration of apartheid schooling in America*. Broadway Paperbacks.
- Lee, C. C. (1996). *Saving the native son: Empowerment strategies for young Black males*. <https://files.eric.ed.gov/fulltext/ED393059.pdf>
- Liang, B., & West, J. (2007). Youth mentoring: Do race and ethnicity really matter? *Research in Action, 9*.

- [https://www.mentoring.org/new-site/wp-content/uploads/2015/09/RIA\\_ISSUE\\_9.pdf](https://www.mentoring.org/new-site/wp-content/uploads/2015/09/RIA_ISSUE_9.pdf)
- Martinez, R. O., & Dukes, R. L. (1997). The effects of ethnic identity, ethnicity, and gender on adolescent well-being. *Journal of Youth and Adolescence*, 26, 503–516.
- My Brother's Keeper Alliance & MENTOR. (n.d). *Guide to mentoring boys and young men of color*. <https://www.mentoring.org/new-site/wp-content/uploads/2016/05/Guide-to-Mentoring-BYMOC.pdf>
- Natural Circles of Support. (n.d.). [home page]. <https://www.naturalcircles.org/>
- Natural Circles of Support. (2017, May 18). [PowerPoint slides]. UW Extension. <https://fyi.extension.wisc.edu/programdevelopment/files/2016/03/Natural-Circles-of-Support-PPT-SEEP-webinar.pdf>
- Noguera, P. A. (2003). The trouble with black boys: The role and influence of environmental and cultural factors on the academic performance of African American males. *Urban Education*, 38(4), 431–459.
- Noguera, P. A. (2009). *The trouble with black boys: And other reflections on race, equity, and the future of public education*. Jossey-Bass.
- Phinney, J. S., & Tarver, S. (1988). Ethnic identity search and commitment in black and white eighth graders. *Journal of Early Adolescence*, 8(3), 265–277.
- Putnam, R. D. (2015). *Our kids: The American dream in crisis*. Simon & Schuster.
- Rhodes, J. E., & DuBois, D. L. (2008). Mentoring relationships and programs for youth. *Current Directions in Psychological Science*, 17(4), 254–258. <https://doi.org/10.1111/j.1467-8721.2008.00585.x>
- Sánchez, B., Pinkston, K. D., Cooper, A. C., Luna, C., & Wyatt, S. T. (2016). One falls, we all fall: How boys of color develop close peer mentoring relationships. *Applied Developmental Science*, 22(1), 14–28.
- Stancil, W. (2018, March 14). School segregation is not a myth. *The Atlantic*. <https://www.theatlantic.com/education/archive/2018/03/school-segregation-is-not-a-myth/555614>
- Steele, C. (2011). *Whistling Vivaldi: And other clues to how stereotypes affect us*. W.W. Norton.
- Stevenson, H. C., Reed, J., Bodison, P., & Bishop, A. (1997). Racism stress management: Racial socialization beliefs and the experience of depression and anger in African American youth. *Youth & Society*, 29(2), 197–222. <https://doi.org/10.1177/0044118x97029002003>
- Struchen, W., & Porta, M. (1997). From role-modeling to mentoring for African American youth: Ingredients for successful relationships. *Preventing School Failure: Alternative Education for Children and Youth*, 41(3), 119–123. <https://doi.org/10.1080/10459889709603279>
- Sue, D. W., & Sue, D. (2002). *Counseling the culturally different: Theory and practice* (4th ed.). Wiley.
- Tatum, A. W. (2005). *Teaching reading to black adolescent males: Closing the achievement gap*. Stenhouse.
- Tatum, B. D. (1997). *Why are all the black kids sitting together in the cafeteria? And other conversations about race*. Basic Books.
- Yancey, A. K., Siegel, J. M., & McDaniel, K. L. (2002). Role models, ethnic identity, and health-risk behaviors in urban adolescents. *Archives of Pediatrics & Adolescent Medicine*, 156(1), 55–61. <https://doi.org/10.1001/archpedi.156.1.55>
- Woodland, M. H. (2008). Whatcha doin' after school? A review of the literature on the influence of after-school programs on young black males. *Urban Education*, 43(5), 537–560.
- Wyatt, S. (2009). The Brotherhood: Empowering adolescent African American males toward excellence. *Professional School Counseling*, 12(6). <https://doi.org/10.1177/2156759x0901200615>

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