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See the inside back cover for the call for papers for future issues of Afterschool Matters.
VOICES FROM THE FIELD
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Sara Cole
Broken crayons. Board games with half the pieces missing. “Toys” that were never intended for children. Why are we still fighting this battle?

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Interviews with school and afterschool leaders and front-line staff reveal both disconnections and opportunities for fuller communication.
VOICES FROM THE FIELD

I have always placed a lot of stock in artifacts. When I walk into an afterschool program, one of the clearest and quickest things I use to assess the situation is how the room looks. What activities and supplies are available? What is on the walls? What is on the desk in the corner? During the overpowering winter of 2015 in New England, I left my home one evening during the tail end of a snowstorm. My son had suddenly developed an ear infection, so I was on my way to the local drugstore, which had, remarkably, remained open. The streets had closed much earlier in the day.

Trudging through the soft snow piled onto what had once been a sidewalk, I passed no other walkers, no vehicles, not even a snowplow. When I left the store with my son’s prescription, I headed back the way I had come. Nothing had changed—except that I saw my own footsteps in the still, silent snow, letting me know that I had been there before.

Recently I participated in the launch of the second year of the newly structured Afterschool Matters Fellowship, an intensive professional development opportunity for out-of-school time (OST) professionals. Begun by the Robert Browne Foundation as a set of local projects, the fellowship went national under the auspices of the National Institute on Out-of-School Time (NiOst) in 2015. Our partner continues to be the National Writing Project, and the Robert Browne Foundation continues to fund the fellowship through a generous legacy grant.

The fellowship engages OST practitioners in facilitated inquiry into their own practices and programs. The goals are to improve the quality of the fellows’ programs and to develop resources that can have an impact on the broader field.

As I needed my footsteps to let me know that I had walked through a mile of snow, so OST professionals need to think every day about what we leave behind. How do we know that we have been at that program, interacted with those youth, spent time training or coaching those staff? What evidence shows that our work has helped to guide youth toward healthy and productive lives? How can we make a lasting impact that goes beyond our own practice and programs? Participants in the Afterschool Matters Fellowship are answering these questions, in part, by producing artifacts: journal articles, slide decks, blogs, webinars.

The authors in this issue of Afterschool Matters are leaving footprints. They share strategies for making a lasting impact on the field: by validating instruments that measure program quality, by creating infrastructure to support learning in specialized areas such as STEM, by training OST staff in professional learning communities, and by developing school-afterschool partnerships that can foster shared vision. To kick it all off, the opening essay by an Afterschool Matters Fellow points out that even crayons can remind us of our sustained focus on quality OST experiences for all children and youth.
evening to fix, clean, train, fire, strategize, reorganize, plan, and budget. Some Saturdays, I would wake up in the middle of the night and then feel relieved that the center was closed. I never could truly relax during the 12 hours the center operated each weekday. During my time as interim center director, I reorganized all 13 classrooms. In one of them, I found three heads of the kind hairdressers practice on; their faces were grimy and their hair was matted. Children had been playing with them. I was horrified. Carrying all three heads upstairs with me, I proceeded to give impassioned speeches to anyone who could not get away fast enough about how important it was for quality programs to have high-quality toys. At some point in the speech, I would grab the head and wave it close to the frightened listener to make my point. I put the heads in my office so I could not help but see them each day and remember how hard we needed to continue to work. They became an effective (if ridiculous) metaphor for what I wanted our programs to be—and of the night just trying to figure it all out. I sometimes cried, out of frustration and exhaustion, in my car on the way home. I remembered what it was like to work with youth and with parents and with staff every day.

Eventually we hired a really great director and a wonderful assistant director. Eventually there were days that I did not have to walk through that center and weekends that I forgot to wake up in the middle of the night and feel relieved. Eventually the remaining two heads found their way out of my office. When I went to find them to take a photo, they had disappeared. Those heads may be missing, but the sad crayons (and their ilk) probably still crop up now and again. I don’t want to forget that the struggle for quality is continuous. I don’t want to forget that the greatest joy lies in the hardest work. I don’t want to forget what it is to touch the programs every day—to be so moved, so tired, so in love with an idea of what something could be that I lie awake in the middle of the night just trying to figure it all out.

Author’s Note
This essay is dedicated to Sue Reschke, fierce advocate and partner in the struggle.

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The Assessment of Program Practices Tool

The APT is an observational instrument created in 2005 by Beth Miller and Wendy Surr of the National Institute on Out-of-School Time (NIOST) to measure OST program quality. It observable aspects of a program in action. Research suggests that quality program contributes to the 21st century skills, attitudes, and behaviors youth need to be successful in school and the workplace (Miller, 2005).

The APT is one component of A Program Assessment System (APAS), an integrated quality and outcome assessment system developed by NIOSST in partnership with the Massachusetts Department of Elementary and Secondary Education 21st Century Community Learning Centers (21st CCLC) initiative.

We recruited 25 afterschool programs in greater Boston: 12 school-based programs, four community-based non-profits, and nine sites affiliated with national organizations such as the YMCA and Boys & Girls Clubs of America. Almost all received 21st CCLC funding. Programs served varying age groups: elementary only, middle school only, and K–8. A diverse sample of 824 youth in grades 4–8, equally male and female, completed an online survey; slightly more than half (65 percent) were in grades 4–5.

Table 1. Three APT Quality Domains and Their Associated Quality Areas

<table>
<thead>
<tr>
<th>Domain</th>
<th>Quality Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive social environment</td>
<td>Welcoming and inclusive environment</td>
</tr>
<tr>
<td>Program organization &amp; structure</td>
<td>Space conducive to learning</td>
</tr>
<tr>
<td>Opportunities for engagement in learning &amp; skill building</td>
<td>Youth autonomy and leadership</td>
</tr>
</tbody>
</table>

Each item is rated on a 4-point scale, where 4 represents the desired practice. Detailed item-specific “anchors” define each rating point and provide observable indicators to guide scoring. Figure 1 illustrates the anchors for a conditional item: one that can be rated only if the condition, in this case youth misbehavior, is observed.

Figure 1. Sample APT Rating Anchors

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff do not use simple reminders to redirect behavior OR always overreact to youth behavior.</td>
<td>Staff sometimes use simple reminders to redirect behavior but overreact to youth behavior.</td>
<td>Staff usually use simple reminders to redirect behavior but overreact slightly to youth behavior.</td>
<td>Staff always use simple reminders and are always calm when handling youth behavior.</td>
</tr>
</tbody>
</table>

### APT Validation Study Phase 1: Scientific Rigor

In 2010, Phase 1 of the APT Validation Study was conducted to assess the technical properties of the tool and confirm its scientific rigor. We conducted four tests:

- **Internal consistency:** whether all items assigned to the same scale receive a high score when a program shows high-quality in a given quality area, whether the items as a set can distinguish higher- and lower-quality programs
- **Test-retest reliability:** whether scores are not overly sensitive to day-to-day fluctuations in quality
- **Inter-rater reliability:** whether two raters observing the same program on the same day give the same ratings
- **Predictive validity:** whether programs with high APT scores have better youth outcomes than programs with lower APT scores

### Methods Participating Programs

We recruited 25 afterschool programs in greater Boston: 12 school-based programs, four community-based non-profits, and nine sites affiliated with national organizations such as the YMCA and Boys & Girls Clubs of America. Almost all received 21st CCLC funding. Programs served varying age groups: elementary only, middle school only, and K–8. A diverse sample of 824 youth in grades 4–8, equally male and female, completed an online survey; slightly more than half (65 percent) were in grades 4–5.

### Data Collection

One external and one internal observer were sent to each of the 25 programs for two visits two weeks apart. Internal observers studied their own site for both visits, each time paired with a different external observer. External observers studied a different site each time. During site visits, observer pairs remained together but assigned ratings separately, following a strict observation protocol. At each site, all youth in grades 4–8 were invited to complete the Survey of Afterschool Youth Outcomes–Youth (SAYO-Y) within three weeks of the first visit. The SAYO-Y, a part of APAS, is a self-report instrument that measures three key areas: youth’s program experiences, their sense of competence, and their future planning and expectations. Initially developed in 2008, SAYO-Y has undergone extensive testing to confirm its consistency and validity.

### Analysis and Results

Analysis of the observation ratings and the corresponding SAYO-Y scores led to five findings about the consistency, stability, reliability, and validity of the APT.

### Finding 1: APT items can be combined to create reliable scale scores.

The findings show that the APT items designed to measure the same quality area work together as a set to distinguish among programs with varying levels of quality and that items designed to measure one quality area are distinct from items designed to measure another quality area. Furthermore, the study found that APT items could be combined to produce an overall rating of quality.

We also established that the items in each APT section representing a specific time of day could be reliably combined into a scale score to assess the quality of, for example, homework time or activity time. This finding is particularly important for programs that opt to focus their self-assessment on particular times of the program day, rather than using the entire APT.

### Finding 2: The APT can be used to compare programs or activities within a program.

A rigorous tool must be able to capture different levels of quality, from very low to very high. A tool is not useful if...
it captures small distinctions among very high-quality programs but cannot distinguish between moderate- and low-quality programs. Therefore, we tested whether, among all the programs studied, scale scores ranged along the full continuum from very low to very high.

We used statistical models to examine variability in quality across sites and among activities within sites. Results show statistically significant differences in the quality of programs, confirming that the APT can be used to distinguish between one program and another either in overall quality or in specific quality areas. Scales created for specific time-of-day sections were less able to capture differences between or within programs—except for the activity time scale, whose scores captured statistically significant quality differences among activities within a site. Programs thus can use activity time scale scores for self-assessment.

Finding 3: APT scale scores are not overly influenced by program fluctuations.

A quality assessment instrument must produce stable quality ratings that are not overly sensitive to day-to-day fluctuations in practices. When a program is assessed during a short time window, real change in quality is not expected to occur, so the APT scores should be similar. When we assessed test-retest stability for individual items, quality areas, and time-of-day scales, we found that internal observers produced ratings that were stable over the short term. Observers should therefore be able to use the APT to capture aspects of quality that are stable across multiple observation days.

Finding 4: Perfect interrater agreement is hard to achieve.

A quality assessment tool must be able to produce accurate quality ratings that are free from variations due to subjective opinions and perceptions. No matter who conducts the observation, a program’s quality ratings should be the same.

When we tested interrater reliability for individual APT items, findings were mixed. The average rate at which both observers assigned the exact same rating was 59 percent, the range for all raters was 21 percent to 100 percent. Few items passed statistical tests of interrater agreement. Other researchers have reported similar challenges in reaching interrater agreement for similar observational instruments (Bell et al., 2012; Hill et al., 2012).

We used a set of exploratory statistical tests to explore the extent to which differences in ratings might be due to characteristics of raters, such as their age, gender, experience, and education, or to observation conditions, such as the length or type of activity and the numbers of staff and youth present. We found that agreement was harder to attain in observations of sports and active games. This finding is not surprising. These activities can be fast moving and cover large spaces, so that observers could have trouble hearing and seeing interactions.

Though internal and external raters often disagreed, internal raters were consistent in their ratings of their own programs over time. Use of the APT as a self-assessment for program improvement therefore appears warranted. However, comparison of one program with another by external raters, especially when stakes are high, may require more training to produce better rating agreement.

Finding 5: The APT measures program aspects that are directly related to youth outcomes.

Those interested in assessing program quality want to be confident that the quality areas being measured are important to youth experiences and outcomes. To examine the concurrent and predictive validity of the APT, we analyzed the relationships between the quality areas and youth responses to the SAYO-Y. Results show many associations between APT ratings and youths’ program experiences, as summarized in Table 2. For instance, youth perceptions of having a supportive adult show numerous connections with APT ratings. Associations between APT ratings and youths’ attitudes and beliefs are even more prevalent and strong, the strongest correlation is between youths’ sense of competence as learners and several APT quality areas.

Table 2. Relationships Between APT Quality Area Scores and SAYO-Y Scale Scores

Revisions

Based on the item-level results, some APT items were dropped or revised, and newly revised items and their anchors were piloted. These improvements were incorporated into the instrument for Phase 2 of the APT Validation Study.

APT Validation Study Phase 2: Training

Phase 1 findings suggest that, although individual raters are consistent over time, they do not always agree with other raters. Researchers have had the same result with similar observational instruments (Hoyt & Kerns, 1999; Lumley & McNamara, 1993).

Growing interest in use of the APT for high-stakes purposes, such as quality rating and improvement systems, led to interest in enhancing interrater reliability. Training and practice have been found to increase rater scoring accuracy (Hoyt & Kerns, 1999; Knoch, Read, &
von Randow, 2007; Schlientz, Riley-Tillman, Brtesch, Walcott, & Chafouleas, 2009). We therefore developed an enhanced APT training with three components:

1. The comprehensive APT Anchors Guide, which offers scoring criteria for each item (see Figure 1).
2. Master-scored online practice video clips with detailed rationales for the assigned scores.
3. Advanced in-person training.
4. Targeted feedback with recommendations for additional practice.

Strict use of the APT Anchors Guide was intended to focus observers solely on the observable behavior of staff and youth. Enhanced training, including the video clips, was designed to minimize subjective interpretation and discrepancies among raters. As our primary research question was, “Do trainees who undergo APT training and practice improve in the accuracy of their APT ratings?”

Methods

Participating Trainees

We identified a sample of APT trainees to reflect the expected profile of likely APT raters with respect to geography, prior experience, age, and familiarity with APT. Our sample of 39 trainees was drawn from the New England area and from the South. The sample was 69 percent female and 31 percent male, 26 percent Black, and 15 percent non-Black minority. Twenty-six percent of trainees were under 30 years old, 36 percent between 30 and 40, 23 percent between 41 and 50, and 13 percent older than 50. The majority had experience with programs for elementary and middle school youth. Only 38 percent of trainees reported that they had ever used the APT Anchors Guide. In order to evaluate the reliability training, we asked the trainees to complete four video-rating exams: one at baseline and one after each major component of the training, as shown in Figure 2. Using ratings by master raters (“master scores”) as a reference, we examined the results to see whether trainees improved in the accuracy of their ratings and, if so, at what points in the training and for which APT sections or scales.

We chose to use video clips rather than live practice opportunities for training in order to ensure that the focus of the observation was consistent across raters. In live observations, the 360-degree view of the environment means that two observers may pay attention to different activities and therefore rate different sets of staff and youth. For training purposes, we needed to narrow the field of focus in order to draw trainees’ attention to specific instances that they could map onto the anchors for each item. Furthermore, using video clips enabled us to define accuracy as the match between trainee ratings and master scores, as opposed to the less precise method we used in Phase 1, where agreement between raters served as a proxy for accuracy.

Training Components

The enhanced training, as outlined above, had three major components.

APT Anchors Guide. A key aspect of training was providing the comprehensive Anchors Guide in order to build raters’ familiarity with and use of the anchors.

Master-Scored Videos. To create video clips for use in the study we selected eight New England afterschool programs, based on considerations such as size, type, location, ages served, and race/ethnicity of youth served. To capture a variety of program practices, these programs were videorecorded over four days. Each recording was subdivided into a number of shorter clips, organized by the time-of-day sections of the APT. The 350 resulting video clips ranged in length from one minute to 20 minutes. Each clip was reviewed by up to four master raters who had extensive experience in after-schools and were familiar with the APT. Clips were considered for inclusion in APT exams and practice modules if the audio and video quality was good and if agreement among master scorers was high. Furthermore, the clips represented various anchors and conditional items (for example, “if there is youth misbehavior”). Each APT practice module and exam included one clip from each APT time-of-day section. All were approximately one hour long, included only one clip from any one of the eight recorded programs, and offered a good representation of low-, medium-, and high-scoring clips. Following each time-of-day video clip, the online program displayed the relevant APT items, with their lowest and highest scores, and trainees rated the video clip on each of the items in that APT section. Immediately afterward, each clip was scored by the master score and the reasoning behind that rating was displayed. In practice modules, trainees could go back to review the video clips after seeing the master scores. The exams did not offer this option.

In-Person Training. After rating the videos, trainees participated in a six-hour in-person APT training event. Two highly experienced APT lead trainers focused the in-person training on the 15 APT items on which trainees had the lowest rates of agreement with master scores in the exams. The trainers used video clips from the exams to demonstrate common sources of ambiguity, such as interactions that fell between a rating of 2 and 3. Small- and whole-group discussions enabled the trainers to open a dialogue so trainees could come to a collective conclusion about the evidence supporting the master score. Agreeing about the evidence is a key step in improving accuracy.

Targeted Feedback and Additional Practice. After the in-person training and its exam, trainees were offered feedback recommending that they complete additional practice modules in the area in which they scored lowest.

Data Collection

The primarily data collection instruments were video exams, one at baseline and one after each of the APT Anchors Guide, after the in-person training, and after the targeted feedback. The final exam took place within three weeks of the in-person training. It included a qualitative process evaluation asking trainees about their experience with the training materials and their level of confidence in assigning APT ratings.

Analysis and Results

Between the baseline exam and exam 2, we asked trainees to rate at least one of the two practice clips for each APT time-of-day section, aiming for six practice clips. They rated an average of 9.6 clips. Between exams 3 and 4, participants rated an average of 2.13 clips out of the recommended four. Trainees reported varying levels of use of the APT Anchors Guide: 64 percent said they used it always, 31 percent some of the time, and 5 percent rarely. Participants who were White, female, older, or from the South completed more practice modules and referred more often to the guide.

Across all four exams, 53 percent of the trainees’ ratings matched the master scores exactly. Trainees were more likely to match the master scores when scores were in the high or low end of the rating scale, and if the youth in the clip were in middle school rather than elementary school. White and non-Black minority trainees were more likely to match the master score than were Black trainees. In several time-of-day sections, trainees had more matches when the clips were shorter; only in the homework section did longer clips yield more matches. In the open-ended evaluations, a high percentage of trainees recommended using shorter video clips. The reasons they gave were attention span limits for videos, issues with narrow camera angles and audio quality, and a preference for focusing on a limited program snapshot. In order to test the hypothesis that training would improve in the match between trainee ratings and master scores, we examined the results of exams 2–4. To do so, we made statistical adjustments to compensate for differences among the exams in such characteristics as the total quality score of all the clips, clip duration, and participate age group. We also adjusted for lack of compli ance with the exam protocol, as when trainees cut the clip short rather than viewing to the end. This analysis resulted in four significant findings.
Finding 7: The in-person training did not improve average rating accuracy. Exam 3, administered after the in-person training, showed a significant overall decline in trainees’ rate of agreement with master scores, by an average of 6 percentage points. However, 16 of the 39 participants did not decline, and eight improved by 6 or more percentage points. Two participants experienced strong gains of 15 and 10 percentage points.

We sought but did not find characteristics that distinguished trainees who improved from those whose scores declined. However, participants’ comments may shed some light. Many participants said that they found the in-person training helpful because they could ask questions and share insights with others. However, some participants did not find that the training improved their accuracy.

Finding 8: Targeted feedback and additional video practice did not further improve scores. The final exam, administered after recommendations for targeted practice after exam 3, did not yield significant improvement in trainees’ agreement with master scores. Analysis of changes in scores for time-of-day sections of the APT yielded similar results, with the greatest improvement emerging between the baseline and exam 2, after the video training. Trainees may have experienced a plateau effect, even though the highest rate of agreement with master scores on exam 3 was only 86 percent. Another explanation could be burn-out due to the heavy demands the study made on participants.

Finding 9: High-priority APT quality areas showed the most improvement. Four of the APT program quality areas showed improvement in ratings: supportive staff-youth relations, positive peer relations, behavioral guidance, and high program activity organization. In all four areas, average trainee scores showed considerable improvement from baseline to exam 2, ranging from 8 percentage points for behavioral guidance to 20 percentage points for positive peer relations. Three of the four quality areas showed improvement in accuracy across the full training experience, from baseline to exam 4. The fourth area, supportive staff-youth relations, showed an average decline in accuracy of 3 percent, with a particularly pronounced decline of 19 percentage points between exams 3 and 4. However, between those two exams, the individuals whose scores improved had relatively low average scores of 49 percent at exam 3 while those whose scores declined had higher average scores of 55 percent. Targeted feedback seems to have improved the scores of trainees who struggled to rate the staff-youth relations items accurately. Average scores in the quality area of behavioral guidance were particularly volatile. After improving by 8 percentage points at exam 2, they fell by 23 percentage points at exams 3 and 4, then rebounded to improve by 21 percentage points at exam 4. In the post-study survey, trainees frequently said that they disagreed with the master scores for behavioral guidance items. One trainee noted: ‘I think also I may disagree with some of the [master] scores in general. Although I understand we need to use the [master scores] as our guide, ... what the raters sometimes scored as inappropriate or disruptive behavior I felt was kids being kids.

Cultural differences in the interpretation of such factors as child behavior may have been responsible for some of the discrepancy in agreement scores among trainees from different racial and cultural backgrounds.

Limitations, Implications, and Next Steps

We found a promising pattern of improved scores after trainees were exposed to the APT Anchors Guide and engaged in video-based practice. These findings suggest that future reliability trainings should focus on increasing familiarity with and expert knowledge of the guide. Ample opportunities for video practice should focus on improving accuracy by emphasizing links among ratings, particular events in the clips, and corresponding anchors.

This study has revealed that some APT items are more open to cultural-specific interpretations than others, and that some videos are more ambiguous than others. Point of view is a key aspect of observational research, so there must be room for people from different cultural backgrounds to pose alternative interpretations of behaviors and to have different views of what constitutes low-quality and high-quality social interaction. We are seeking additional funding to address any potential cultural bias in some APT items or training materials.

Limitations, Implications, and Next Steps

The study also addressed both the potential and the limitations of using video for training. Video technology is widely available and convenient, but problems such as connectivity issues can limit its usefulness. Furthermore, even with professional videographers using high-quality sound and video equipment, capturing the essence of youth-adult interactions is a tall order. Camera angles can provide limited views, and audio quality will vary depending on the size of the group and room. Early video practice did help participants modestly improve in their accuracy. Still, editing all videos to focus more carefully on the same visual and audio nuances may improve the ability of future video training to improve participant accuracy, particularly since people have limited attention spans for video viewing. The average viewing time for internet videos is only 2.7 minutes (Statistic Brain, 2016).

This article outlines the preliminary steps we have taken to test APT reliability training so that it can be further refined for wide adoption. Next steps include achieving an acceptable and consistent level of rater accuracy through video-based reliability training. An acceptable accuracy rating is usually set at 80 percent for similar tools in the field, such as the Center for Youth Program Quality’s Youth Program Quality Assessment and TeachStone’s Class (Bell et al., 2012). This prototype of a reliability training system with four exams must be further fine-tuned before going into the field for reliability certification. For instance, we would improve the system by taking into account the valuable trainer feedback, ranging from clarifying key terms in the APT Anchor Guide to carefully selecting video clips that are unambiguous.

The compelling reason to train observers to rate program quality accurately is that programs’ use of such ratings is strongly associated with improving important quality areas such as supportive youth-staff relations and positive peer relations (Miller, 2005). As shown in the youth survey results in Table 2, these areas are significantly related to positive youth outcomes, such as sense of competence as a learner, sense of social competence, and future planning and expectations. Ultimately, we are refining the APT training so that it can be implemented more widely, where they can have an impact on youth program practice and policy and on the use of research evidence to support that critical work.

References

Finding 7: The in-person training did not improve average rating accuracy.
Infrastructures to Support Equitable STEM Learning Across Settings

William R. Penuel, Tiffany L. Clark, and Bronwyn Bevan

STEM learning is a process that unfolds through dynamic interactions over time and across settings. Formal education in schools is not the only—or necessarily the most significant—context for STEM learning.

Important opportunities also occur in out-of-school time (OST), including during designed programs before and after school, through the support of mentors, and via online communities (Adams, Gupta, & Cotumaccio, 2014; Bell, Tzou, Bricker, & Barnes, 2012; Ito et al., 2013). Collectively, these opportunities make up a “STEM learning ecosystem,” which comprises the interactions among learners, the settings in which learning occurs, and the learners’ communities and cultures (National Research Council, 2015, p. ES-2).

Advancing equity in STEM requires providing young people of all backgrounds with a rich array of resources for learning across the multiple settings of their lives—in school, in community organizations, in neighborhoods, in families, and in online communities. A recent National Research Council (2015) report called out the need for learning opportunities in communities and to explore how youth navigate those opportunities. The field could promote equity, the report suggested, both by addressing gaps in the STEM learning ecosystem and by connecting youth from underrepresented groups—girls, for example, and African-American, Latino/a, and Native youth—to existing opportunities. The report also called for building a lasting “STEM learning infrastructure” (p. ES-2) to address inequities that limit the access of youth from underrepresented communities to STEM careers and academic pursuits (National Research Council, 2015).

This paper outlines principles for building a diverse and connected ecosystem and the features of a STEM learning infrastructure to promote equity. Our recommendations are derived from a review of literature on general strategies for leveraging diversity in STEM learning and on specific programmatic efforts to promote young people’s learning across settings. The research on equity shares a premise that diverse everyday experiences are a resource less rather than a barrier to young people’s learning (Gutierrez & Rogoff, 2003; Nasir, Rosebery, Warren, & Lee, 2014). The goal of STEM education, then, should be not to eliminate perceived deficits in students, their families, or their communities, but to find connections between each of these and disciplinary knowledge and practices (Warren, Ogonowski, & Pothier, 2003).

Because the literature on programs that make explicit attempts to promote learning across settings is relatively new and sparse, we sought to identify programs that were grounded in this premise and that had some evidence of positive youth outcomes. Our review included designs that show at least some promise of expanding youth access to STEM learning in and across settings. The result is a set of five design principles for designing equitable STEM learning ecosystems and a corresponding set of infrastructures necessary to support such systems.

Design Principles to Support Equitable Learning Across Settings

Our literature review revealed five design principles for translating ideas about equitable STEM learning ecosystems into program structures. To promote equitable cross-setting learning, afterschool programs must:

1. Draw on values and practices from multiple settings to articulate shared learning goals and to identify resources that can help to meet those goals
2. Structure partnerships so that multiple stakeholder groups can co-design initiatives to promote learning across settings
3. Engage young people in building stories, imaginative worlds, and artifacts that make connections and have meaning across learning settings
4. Help youth identify with the learning enterprise by supporting and naming them as contributors to authentic endeavors
5. Intentionally broker youth learning across settings, including preparing educators and family members to be brokers

These design principles have been applied to the development of learning opportunities, but they have not been widely tested as a set. Rather, they are useful guidelines that can be verified through empirical study and then refined or even dropped (Bell, Hoadley, & Linn, 2004). The five design principles are intended to serve as provisional guides to be tested and refined over time through research and development.

The goal of STEM education, then, should be not to eliminate perceived deficits in students, their families, or their communities, but to find connections between each of these and disciplinary knowledge and practices.

Infrastructures to Support Equitable STEM Learning Across Settings

The first design principle for equitable STEM learning is to draw on values and practices from multiple settings to articulate shared learning goals and to identify resources that can help to meet those goals.

Educational design research typically focuses on a single learning environment. Designing for inclusive learning across settings requires diverse perspectives on learning goals, challenges, and resources to be leveraged; for example, practices for supporting learning are organized differently in families than in schools (Rogoff et al., 2007). Afterschool programs need to understand young people’s cultural norms in order to use those norms as learning resources. To do so, they must build relationships with communities and families (Brown & Nicholas, 2012).

An example of an effort to draw on local communities’ values and practices to support STEM learning is the Ethno E-textile project (Kadai, Searle, Martinez, & Brayboy, 2014). The project used electronic textiles and local Native American crafting and sewing practices to help students learn about engineering and computing. The project involved close collaboration among researchers, a teacher, and members of the local cultural resources

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department to identify links among comparing practices, craft practices, and local knowledge. The researcher-facilitators explicitly drew out the computational principles already present in local crafting cultures. They challenged youth to reflect on how computer tools could be useful in their community and reflect their own interests and identities. Creating designs that reflected their hybrid experiences in both Western and indigenous communities, students easily connected the e-textile project and their Native Arts class. This project underscores how community value systems can provide a context for learning about computing while linking home and school spaces (Stearle & Kafai, 2013).

**Involve Stakeholders in Co-Design**

The second design principle is to structure partnerships so that multiple stakeholder groups can co-design initiatives to promote learning across settings. Co-design in education is a highly facilitated process that engages people who have diverse expertise in designing, developing, and testing educational innovations (Penuel, Roschelle, & Schechter, 2007). In structuring partnerships to support equity, leaders must consider not only which stakeholder groups need to be involved, but also the history of these groups. Inequities can be perpetuated when designers presume that everyone can and will participate equally despite a history of disenfranchisement of people from nondominant communities.

A collaborative effort led by Megan Bang and colleagues (Bang, Medin, Washmanawin, & Chapman, 2010) with the Menominee people in rural Wisconsin and with Native people living in Chicago illustrates this intentional approach to co-design that incorporates historical inequities. This partnership aimed to increase the science achievement of Native American students and their representation in science-related professions while deepening students’ “community-based ways of knowing,” which reflect indigenous scientific epistemologies (Bang & Medin, 2010, p. 1009).

Countering the long history of research conducted in indigenous communities without consideration for cultural values and without involving the communities in the research, Bang and colleagues designed a form of participatory action research (Herme, 1999) that fully engaged the indigenous communities. The approach included input from local elders, support from tribal institutions, use of traditional language, respect for cultural values, and broad community participation in the research activities. The inclusion of stakeholder groups throughout the research and development process was vital to the design of learning across settings and the successful youth outcomes the researchers documented (Bang & Medin, 2010). Promoting equitable cross-setting learning should not be the job of just one person or organization. Partners working across settings need to make sure many voices are involved.

**Make Connections Across Settings**

The third design principle for equitable STEM learning suggests that afterschool programs engage young people in building stories, imaginative worlds, and artifacts that make connections and have meaning across learning settings. Our literature review uncovered several afterschool programs that have engaged participants in co-constructing narratives that have significance in multiple settings.

Transmedia storytelling (Jenkins, 2010) is a design approach for creating a single story that audiences or learners can experience across different media. It typically involves building an imagined world in which plots unfold across various media as characters not only identify with characters but also add to the narrative itself. Participants can shape the story by adapting it in their own creative writing, as is common in fan fiction (Chandler-O’Scott & Mahler, 2003).

Transmedia storytelling is increasingly common in the entertainment sector. In recent years, educational broadcasters have begun to use television storytelling to design cross-setting innovations for children. An example is a set of interventions to promote low-income children’s mathematics and science learning. Because the programs appeared on broadcast television and the interventions included resources for parents, families could extend their children’s learning at home. More parents in the intervention group reported that their children talked with them about ideas in the science curriculum than did parents of children who were not part of the intervention group (Penuel et al., 2010).

**Name Youth as Contributors**

The fourth design principle for cross-setting STEM learning is to help youth identify with the learning enterprise by supporting and naming them as contributors to authentic endeavors. Learning always involves becoming a certain kind of person, that is, developing an identity. Identity development involves appropriating, or “making one’s own,” the tools and practices of a discipline (Hand & Gresalfi, 2011). Young people who identify as science learners are more likely to access science learning and to persist and succeed in it. However, historically underrepresented STEM participation exclude women and members of particular racial groups, including Latinos, African Americans, and Native Americans. Intentionally developing positive science learning identities is critical for expanding equity in science education.

Designing for identity development requires giving young people opportunities to contribute to authentic endeavors and to have their contributions recognized. In authentic endeavors, young people have a say in the purposes of the learning activities in one setting, an experience that prepares them for action in another setting.

**INFRASTRUCTURES TO SUPPORT EQUITABLE STEM LEARNING ACROSS SETTINGS**

Afterschool Matters, 24 Fall 2016

Penuel, Clark, & Ryan

A good example of designing for identity development is Green Energy Technologies in the City (GET City) at the Boys & Girls Club in a Midwestern city (Calabrese Barton & Tan, 2010). The program serves primarily middle-school-aged youth from nondominant communities. As in many other science programs or outside schools, youth learn how to engage in key science practices, such as planning and conducting investigations, analyzing and interpreting data, and communicating scientific information. Unlike many other science programs, however, GET City gives youth a considerable say in the activities: Adult staff regularly enlist them to co-plan activities and then adjust course when youth propose changes. At the insistence of the youth themselves, their investigations brought them into the community, where they conducted street interviews about residents’ experience of urban heat islands. The youth also presented the results of their investigations to city officials. In Calabrese Barton and Tan (2010) document, a number of GET City participants have appropriated identities as “community science experts” (p. 21), that is, as persons who are capable of science and can provide evidence related to culturally relevant environmental concerns in their communities.

**Intentionally Broker Learning Across Settings**

The fifth design principle is to intentionally broker youth learning across settings, preparing both educators and family members to be brokers. Brokering refers to helping people move from one setting into another that might otherwise be inaccessible (Ching, Santo, Hoadley, & Peppler, 2013). Brokering can be understanding the context and to have their contributions recognized. In authentic endeavors, young people have a say in the purposes of the learning activities in one setting, an experience that prepares them for action in another setting (Calabrese Barton & Tan, 2010). Brokering can be understanding the context and to have their contributions recognized. In authentic endeavors, young people have a say in the purposes of the learning activities in one setting, an experience that prepares them for action in another setting.

Designing for identity development requires giving young people opportunities to contribute to authentic endeavors and to have their contributions recognized. In authentic endeavors, young people have a say in the purposes of the learning activities in one setting, an experience that prepares them for action in another setting.

Inequities can be perpetuated when designers presume that everyone can and will participate equally despite a history of disenfranchisement of people from nondominant communities.
tices, brokering is sometimes called “boundary span- ning” (Tushman, 1977). Effective brokering expands not “know how” but “know who”—knowing which people or groups can provide personal or social support or have knowledge, skills, or resources to share (Wellman & Frank, 2001).

Having a broker can be important to getting a job in a STEM field. Brokers help young people navigate educa- tional requirements, bureaucratic procedures, and implicit expectations regarding successful career pathways (Stevens, O’Connor, Garrison, Jocuri, & Amos, 2008). In addition to “know who,” broker- ing requires “know where”—know- ing networks of people and places where learners can pursue deeper learning, whether in formal educa- tional settings, work, play, or civic institutions.

Programs like the Lang Science Program at the American Museum of Natural History, which helps to broker access to STEM fields for underrepresented groups, are purposeful about building partnerships and institutional links among middle and high schools, community colleges, and four-year schools (Adams et al., 2014). Lang participants commit to seven years of work at the museum, where they have opportunities to engage in ongoing research in fields such as zoology, genetics, paleontology, and astrophysics. The program is an intentional effort to support youths’ long-term engage- ment by developing initial interests in STEM, fostering STEM-linked identities, brokering access to high school and college opportunities, and ultimately supporting pursuit of STEM careers. The Lang program team engaged in a retrospective analysis (Adams et al., 2014) to understand how long-term participation in such programs shapes young women’s interest, motivation, and STEM identity and career pathways (Stevens, O’Connor, Garrison, Jocuri, & Amos, 2008). In addition to “know who,” “brokering requires “know where”—knowing networks of people and places where learners can pursue deeper learning, whether in formal educational settings, work, play, or civic institutions.

Combining Design Principles

Ideally, program designers integrate all five principles to design for equitable learning across settings. For exam- ple, a program might integrate principle 3 with principle 5 by encouraging facilitators to elicit youths’ values and interests and then link them to activities in the commu- nity. The same program could recognize youths’ accom- plishments in those activities through a digital badge system that is shared across multiple partner institutions, integrating principle 2 and 4. The badge system could integrate prin- ciple 3 by using a story or “path- way” metaphor to encourage youths to pursue more and more challenging activities.

Supporting Infrastructures for Learning Across Settings

To implement the five cross-setting equity-oriented design principles outlined above, programs need to build supporting infrastructures that can connect organizations and communities (National Research Council, 2013). Supporting infra- structures are explicit and invisible—cross-scenes’ material resources and processes that are critical to the functioning of any learning ecosystem, they must be built and maintained over time.

Focusing on infrastructures is critical to diagnosing inequity and promoting equity (Hall & Jurov, 2015). By making visible the infrastructures that enable many economically advantaged youth to pursue coherent STEM learning opportunities, we can see what must be built into place to provide such opportunities to youth from underresourced communities. Most infrastructures are largely invisible; it takes deep investigation to expose the work infrastructures do, let alone to redesign them. Yet this redesign is a core task of systems change. The design principles outlined above require new infrastruc- tures to support equitable learning across settings.

Adequate Material Resources

One reason advantaged youth can pursue varied STEM learning opportunities is that the families can afford to pay for extracurricular programs, while lower-income families cannot (Duncan & Murnane, 2011). Most of the initiatives described above were funded by grants and therefore were accessible to low-income participants because participation was free.

Resources are needed to support both programs and families. Very little grant funding supports scaling and sustaining programs. Unstable funding for informal orga- nizations may limit their ability to plan, staff, and sustain innovations. Further, research suggests that one reason young people from lower-income families suspend or pursue STEM interests is that they lose access to mate- rial resources, such as transportation or computers, that support their participation (Van Horne, Van Steenis, Pernuel, & DiGaetano, in press). Promoting equity means providing funding to sustain programs and to lower or eliminate the costs of participation for low-income youth. One solution is for cities and states to provide base funding for equity-focused STEM initiatives.

Support for Parents

Middle- and upper-income parents often play a wide variety of roles in supporting their children’s learn- ing, including brokering access to OST opportunities. Beyond broker- ing, parents can play many differ- ent roles in supporting their chil- dren’s learning, from collaborator to teacher to co- learner (Barron, Martin, Takeuchi, & Fithian, 2009). Lower-income parents may need support to learn to take on these roles. Designing opportunities for parents to participate with their children in STEM learning activi- ties holds promise as a means of expanding parents’ repertoires for supporting their children’s learning (Rogue, Lin, & Luzzi, in press). Additionally, intentional efforts to raise parent awareness of learning opportunities that can allow their children to persist in STEM activities may be a crucial part of a robust learning ecology.

Strong Ties Among Organizations

Strong social relationships and links among organiza- tions in neighborhoods are important for educational attainment in schools (Johnson, 2012). They are also important resources for brokering access to opportuni- ties. In order to broker young people’s access to new STEM learning opportunities, adults need to know about the opportunities (Ching et al., 2013). Adult lead- ers’ own community ties to other adults with relevant expertise are important sources of such information.

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Designing Learning Opportunities and Building Supporting Infrastructures

The examples in this paper illustrate the possibilities for designing equitable STEM learning opportunities across settings. They elaborate on a vision presented in the 2015 National Research Council report, which calls for building resilient STEM learning ecosystems where youth can access many learning opportunities that are coherent and build on one another. The components of a supporting infrastructure constitute the conditions for building such ecosystems at the scale of a neighborhood or city. That such supports exist in some areas already provides hope that an ecosystem approach can expand opportunity for youth from underresourced communities.

Our framework articulates broad design principles. Developers of cross-setting initiatives will need to elaborate on these principles to address the specific needs in their communities. Taking into account home and community values and practices when identifying learning goals, structuring partnerships to co-design learning opportunities with nondominant communities, and engage youth in storytelling to facilitate meaning-making all serve as ways to engage youth from underrepresented groups in STEM learning across settings. Similarly, programs must purposefully identify youth as contributors to the scientific enterprise and must intentionally broker youths’ access to opportunities.

In addition, the supporting infrastructures described above must be considered when designing for cross-setting learning. Funders must address the lack of opportunities for all youth. New epistemologies of learning and the summer activity gap. Sociology of Education, 94(2), 13–20.


A skilled workforce is critical in high-quality out-of-
school time (OST) programs (Smith, Devaney, Akiva & Sugar, 2009). However, the workshops commonly used
to train OST staff are not adequately preparing practitio-
ners to deliver quality programs that can benefit youth
(Durlak & Weissberg, 2007; Smith et al, 2009).

This issue is evident from ongoing discussions about how to train OST staff to respond to youths’ de-
velopmental needs while creating a learning environ-
ment distinct from school (Bouffard & Little, 2004; Bowie & Bronze-Tinkew, 2006). Professional learning communities (PLCs) are a practice-focused alternative that has a track record of improving the way staff work with youth (Thompson, Gregg, & Niska, 2004; Vescio, Ross, & Adams, 2008).

PLCs, though relatively new in OST, are growing in popularity. For instance, the Weikart Center for Youth Program Quality encourages programs to create PLCs for continuous quality improvement (Smith et al.,

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JOCELYN ATKINS MICHELSEN, MPA, is a senior research asso-
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ter of public administration degree from New York University.

COREY NEWHOUSE, MPP, is the founder and principal of Public Profit, an evaluation consultancy for youth service organizations. She has a wide range of experience in evaluating programs that serve children and families, including multisite evaluations of edu-
cational and youth development programs. She earned her mas-
ter’s degree in public policy at the University of California, Berkeley.
What components of a PLC do you find particularly successful?

How do you see PLCs differing from other professional development models that you are familiar with?

How have you seen programs benefit from having staff in PLCs?

Working in small groups, participants taking turns role-playing.

What is the typical structure of the PLC that you facilitate?

Facilitator introduces and shows examples of new activity.

Time to practice new content

Debrief practice

Homework, feedback, reflection, closing

Table 1. Professional Learning Community Sample Agenda

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check-in and debrief</td>
<td>Check-in questions: What’s one thing you’ve been thinking about since we last met? What’s one thing you’ve done to make progress on the goal you set last session?</td>
</tr>
<tr>
<td>Introductions of new content</td>
<td>Facilitator introduces and shows examples of new activity.</td>
</tr>
<tr>
<td>Time to practice new content</td>
<td>Working in small groups, participants taking turns role-playing different parts of activity. Facilitator circulates.</td>
</tr>
<tr>
<td>Debrief practice</td>
<td>Discussion or write-up in small groups and then in the large group: What felt easy? What didn’t feel so easy? What might feel different when you take this back to your program?</td>
</tr>
<tr>
<td>Homework, feedback, reflection,</td>
<td>Feedback: session evaluation form. Reflection questions: I learned… I will… I would like to know more about…</td>
</tr>
<tr>
<td>Closing</td>
<td>Schedule observation of another participant’s program</td>
</tr>
</tbody>
</table>

In California, district and state partners created several PLCs in an effort to improve OST staff knowledge and practice in specific content areas such as science and character education (Public Profit, 2013). Typically, a PLC engages a cohort of 10 to 15 professionals in multiple workshops to address a shared goal (McLaughlin & Talben, 2010), such as problem solving, improving practice, or learning new skills. The goal, along with the length and frequency of PLC workshops, depends on the group’s needs. For example, we evaluated a school district PLC for front-line staff aimed at improving math anxiety; this PLC opted for monthly three-hour workshops over a six-month period (McKenzie, 2014) identifies six phases in the life cycle of a thriving PLC: building group understanding, acquiring expertise, practicing skills, solving problems, creating new knowledge, and creating original products. At the end of this cycle, the PLC either renews itself or dissolves. Table 1 is a sample PLC agenda from a session during the “practicing skills” phase.

To maximize a PLC’s benefits, facilitators must employ training techniques different from those used in traditional workshops. We interviewed experienced PLC facilitators to get guidance on how to structure PLCs to meet the needs of OST staff and programs. This article may be most beneficial for organizations that have some PLC experience. A set of practice guides on PLCs by Public Profit (see box on page 23) may be more informative for organizations just beginning to explore PLCs.

Methods

Interviews with six PLC facilitators revealed best practices for designing a PLC for OST staff. Interviewees work with OST providers, have many years of experience facilitating or coordinating PLCs, and have been recognized by OST leaders as prominent facilitators. We interviewed:

• A trainer and consultant with over 15 years of experience facilitating local, statewide, and national PLCs. Her expertise covers public-private partnerships, exemplary afterschool practices, and healthy behaviors.
• The founder of a research and training organization who facilitates PLCs with senior managers in the education sector, notably for summer and expanded learning. She has nearly five years of experience facilitating PLCs and nearly 15 years of experience working with youth-serving organizations.
• The founder of an organization development consulting firm who has over five years of experience partnering with foundations and school districts to organize PLCs on youth development, socio-emotional learning, and organizational capacity building.

A district partner who, as part of the district OST team, supports roughly 75 OST programs. In the last five years, she has collaborated with an external facilitator to lead PLCs on science, math, healthy behaviors, socio-emotional learning, and support for English learners.

A program manager at a youth-serving organization who has been facilitating PLCs for OST staff for three years. She worked closely with school districts and community programs to offer PLCs covering OST science, technology, engineering, and math (STEM) topics.

A researcher and school district consultant who has been facilitating PLCs on such topics as STEM, program quality, and evaluation since 2008. Currently, she facilitates PLCs at the county, regional, and state levels.

In individual one-hour interviews, these facilitators responded to questions about PLC structures, PLCs’ benefits to participants and their organizations, and the valuable supports PLCs offer to OST staff. (See box Sample Interview Questions.) After we recorded and transcribed each interview, we developed descriptive codes related to the interview topics (Saldaña, 2009). For example, under “PLC benefits” we used the codes ‘learning results’ to mark what participants learned and ‘organizational results’ to capture benefits to organizations. In the next round of coding, we used focused codes to define the sub-categories in each topic area (Saldaña, 2009). Using this analytic method, we found key design features of PLCs and ways to modify these features for the OST field.

The interview evidence is drawn from the perspectives of facilitators who collectively possess over 30 years of PLC experience. However, the findings cannot represent the perspectives of all PLC facilitators; each facilitator’s experience—and each PLC—is unique. Our findings represent the best practices that emerged from interviewees’ responses to the specific questions we asked.

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</tbody>
</table>

Public Profit practice guides on PLCs are available at http://www.publicprofit.net/Professional-Learning-Communities-In-The-Expanded-Learning-Field.
Design Features of OST Professional Learning Communities

The experts we interviewed identified three essential PLC components and five additional features that can be modified according to participants’ needs and the PLC’s goals.

**Essential Components of a PLC**

The first step in designing an effective PLC is to understand the model. In interviews, experts identified three essential elements of any PLC: experience, practice, reflection, and collaboration (Figure 1). Prior research indicates that these three components are deeply connected to the iterative learning cycle of a PLC: critical interrogation of youth work practices, applying new lessons, and reflection on how practices are developing (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006).

**Practice**

McKenzie (2014) includes practice and risk-taking opportunities in a collegial climate as a defining feature of PLCs. One interviewee noted that practicing during PLC sessions helps participants “build their confidence and their knowledge.” Because many adults learn by doing, practicing may help knowledge take hold. For example, after watching our experts, participants also learn from modeling that practicing may help knowledge take hold. According to McKenzie (2014), “Any time where we can build in time for people to reflect … that builds the expectation that you are supposed to leave here with something, because we are going to come back and talk about it.” Opportunities for reflection are often successfully built into on-site coaching, as discussed below.

**Reflection**

Fusco (2012) asserts that reflection is one instructional strategy that is consistent among multiple education modes, such as on-the-job training and peer networks for youth workers. PLC facilitators demonstrate new content with the expectation that participants will use it in their programs and reflect on their implementation during subsequent sessions. Interviewees said that this process helps participants assess their progress and increases accountability for using new content.

To lead reflection, facilitators may ask participants to share how the implementation of a previously practiced activity went, focusing on what went well, what didn’t go well, and what to change next time. Said one interviewee, “Any time where we can build in time for people to reflect … that builds the expectation that you are supposed to leave here with something, because we are going to come back and talk about it.” Opportunities for reflection are often successfully built into on-site coaching, as discussed below.

**Collaboration**

When asked to evaluate the strengths of PLCs as compared to other professional development modes, interviewees stressed that sharing challenges and best practices is one of the biggest benefits. In well-facilitated PLCs, participants have the opportunity to “collaborate and network with others, build consensus, problem solve … [and] gain access to resources broadly defined and vis-à-vis the relationships they have developed.” Collaboration may take place in a structured conversation such as a “think, pair, share” activity, or it can be a more informal opportunity to connect with peers, such as sharing challenges and best practices during a PLC discussion. Interviewees said that PLCs can also build participants’ confidence and self-efficacy. Through collaboration, participants can learn from their peers and build the collegial relationships required by a successful PLC (Leberman & Miller, 2011).

Figure 1. Essential PLC Components

**Figure 2. Modifiable PLC Components**

<table>
<thead>
<tr>
<th>Participant Type</th>
<th>Co-Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting who will participate, and at what organizational level, to respond to PLC goals</td>
<td>Deciding to what extent participants will help define PLC goals, collaborate on content, and co-facilitate</td>
</tr>
<tr>
<td>Curriculum</td>
<td>Organizational Supports</td>
</tr>
<tr>
<td>Organizing sessions either around structured curricula or around knowledge sharing and collective problem solving</td>
<td>At the agency level, offering dedicated program space, internal knowledge-sharing routines, or other supports</td>
</tr>
</tbody>
</table>

**Modifiable Components of a PLC**

In addition to the three critical components, interviewees identified five PLC features that can be modified to match the needs of an organization: participant type, curriculum, co-leadership, coaching, and organizational support. Figure 2 outlines these five modifiable features. Table 2 is a PLC decision guide. Starting from the goals of the PLC, it outlines recommendations for incorporating the modifiable components. The discussion of each component below begins with the experts’ broad observations and concludes with practical advice.

**Participant Type**

One consideration in planning a PLC is who will participate. Facilitators recommended choosing participants based on the PLC’s desired goals. They noted that the organizational roles of PLC participants will affect how sessions are structured and what the group can accomplish, as shown in Table 2.

A recent white paper on OST PLCs indicates that, when PLCs are focused on improving access to and the quality of content-specific enrichment activities (such as STEM or gardening), participants are most likely to be OST staff with youth-facing roles (Public Profit, 2015). The goals are accomplished by having front-line staff learn to implement a curriculum, by providing training on facilitation methods, and by offering site-level supports such as coaching. Interviewees noted that, in this type of PLC, site supervisors may support participating front-line staff through, for example, activity observations and coaching, but that the PLC’s focus on instruction does not generally make it a good fit for program leaders. One respondent observed that, even when program leaders don’t participate in the PLC, “there’s a need for someone at the leadership level to provide ongoing coaching … that reinforces what’s happening at the learning community.” To provide this kind of support, site supervisors should be aware of the content covered in the PLC.

Interviewees noted that PLCs for higher-level staff have different goals and therefore different structures. PLCs for site supervisors and other administrators center on innovative approaches to organizational and systemic improvements. Typically, administrators from various organizations attend a series of discussion-based meetings and exchange ideas through resource sharing, newsletters, topic briefs, and similar means (Public Profit, 2013). However, interviewees did describe benefits to blending participant types. As one seasoned facilitator put it, “In my view, in expanded learning, it’s really important to have both program-level and site-level administrators or leaders in the room because they offer very different perspectives.” Bringing together voices that represent different facets of the same goal can be a powerful
<table>
<thead>
<tr>
<th>GOAL</th>
<th>PARTICIPANT TYPE</th>
<th>CURRICULUM</th>
<th>CO - LEADERSHIP</th>
<th>COACHING</th>
<th>ORGANIZATIONAL SUPPORTS</th>
<th>ORGANIZATIONAL SUPPORTS</th>
<th>ORGANIZATIONAL SUPPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>To improve access to and quality of content-specific activities for youth</td>
<td>Front-line staff</td>
<td>If primarily less experienced front-line staff, yes</td>
<td>With structured, scaffolded experience, could develop into co-leadership model</td>
<td>Coached by facilitator and by site supervisor, including on-site opportunities</td>
<td>Receive organizational supports:</td>
<td>Receive organizational supports:</td>
<td>Depending on role, participants receive and provide supports:</td>
</tr>
<tr>
<td>To develop site-level support for knowledge transfer, coaching, and reinforcement with front-line staff</td>
<td>Site supervisors</td>
<td>If primarily more experienced front-line staff, no</td>
<td></td>
<td>Could incorporate peer coaching, including on-site opportunities</td>
<td>• Paid time to plan and attend meetings</td>
<td>• Paid time to plan and attend meetings</td>
<td>• Paid time to plan and attend meetings</td>
</tr>
<tr>
<td>To build frameworks for advocacy, networking, or growing the legitimacy of the OST field</td>
<td>Program administrators or other managers or directors</td>
<td>No</td>
<td></td>
<td>No</td>
<td>• Strong program structure development</td>
<td>• Strong program structure development</td>
<td>• Strong program structure development</td>
</tr>
<tr>
<td>To build multi-level buy-in, collaborative problem solving, resource sharing, or leadership development pathways</td>
<td>A blend of all participant types</td>
<td>No</td>
<td></td>
<td>Yes</td>
<td>• Vision for how new skills align with program goals</td>
<td>• Vision for how new skills align with program goals</td>
<td>• Vision for how new skills align with program goals</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>• Elective participation</td>
<td>• Elective participation</td>
<td>• Elective participation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>• All needed materials</td>
<td>• All needed materials</td>
<td>• All needed materials</td>
</tr>
</tbody>
</table>
The responses of our experts suggest that, to determine the appropriate participants, facilitators can plan backward from the PLC’s goals: What is the ultimate purpose of the PLC? At what level—youth, staff, supervisors, or system—does the focal issue have the most immediate or greatest impact? The answers to these questions will help determine who should participate. For example, if the goal of a PLC is to improve science enrichment quality, then the level of impact is youth; consequently, the best group to tackle this issue is staff who work directly with young people. If the goal is to expand the reach of science enrichment activities in a youth-serving organization, then a PLC for front-line staff, or one that blends staff and resource sharing (McLaughlin & Talbert, 2010).

Because goals should drive decisions about participant types, there is no incorrect approach—only informed planning to support the goal. Ultimately, whatever the form the PLC takes, it needs, as one interviewer noted: “whatever the form the PLC takes, it needs, as one informed planning to support the goal. Ultimately, or organizing subsequent PLCs.

Co-Leadership
Traditionally, PLCs for school educators use a model in which participants co-lead or are actively involved in shaping the community, from goal setting to facilitating sessions (McLaughlin & Talbert, 2010). Research suggests that youth workers also benefit from non-hierarchical, flexible, participatory training methods such as co-leadership (Fusco, 2012). When asked about the importance of participant involvement in early decisions making, some of the interviewees agreed that active participant involvement is critical to a PLC’s success—but they said that time is needed to build participants’ capacity to engage in a highly collaborative, challenging environment. Said one facilitator, “The backbone of a PLC is … creating comfort in that kind of environment, and then creating roles and responsibilities for the constituents of the collaborative learning space.” After establishing a strong sense of collaboration, this facilitator went on, “for sustainability; a key part of PLCs is distributed local leadership.” Interviewees asserted that the extent to which participants are involved in shaping the PLC agenda depends on participants’ experience in the field. A school district facilitator, for example, said that the district refers to its model simply as “learning communities” as a way to make sure that participants do not play a significant leadership role. This respondent said that this level of involvement is a good fit for inexperienced front-line staff.

Co-Leadership is thus integral to PLC design. It is important over the course of our sessions to build a community and a community of practice with the people in the room … but, for the most part, we [the district office] are really driving the content … because of the experience and the skill set of the field, who have not had leadership experience, or who are not given adequate planning time, a more structured PLC experience may be necessary. These participants may grow into leadership roles over time.

Coaching
Interviewees emphasized that coaching is a key support for PLC participants. Coaches and participants should both surface immediate solutions to implementation challenges and set long-term plans around participants’ goals. These conversations may include questions such as, “What do you think could be the solution to the challenges we saw today? What is your goal, and what is your resistance? What will you do next to address these barriers? What will you do in the next six months?” For example, the facilitator of a gardening PLC may visit a participant’s site to check on progress toward creating a youth garden, to understand what is hampering full implementation of a recommended garden design, or to co-create a plan for gardening for the remainder of the academic year. In coaching situations, interviewees stressed, the true work of problem solving and visioning should come from the participant. “It’s our philosophy to draw out solutions from them,” said one facilitator. “The coach comes in and gives their input, but it’s really not my job to be a one-way presenter.”

On-site coaching offers facilitators the opportunity to understand how participants take PLC content back to their sites. One interviewer said: “It’s really helpful for us to see what people think they are supposed to do after a PLC [session]. The coach
Without sufficient materials, stronger staff practices and higher-quality programs must happen at the site level. There is such a range in where staff are coming from in terms of their skills. Whether they’re having big challenges or doing well . . . I’ve seen so much improvement with just one coaching visit, [but] you can’t really know what’s going on in the classroom until you get there.

Though evidence from interviews suggests that incorporating coaching into a PLC for OST front-line staff can positively affect participants’ learning, Kasud, Agrawal, and Kelekis (2014) find that creating a sustainable and scalable coaching model is a common challenge. Interviewees noted that funding constraints are often a barrier to providing coaching from experts such as the PLC facilitator. In that case, interviewees suggested, site supervisors could provide increased support. Site supervisors can support front-line staff in PLCs even if they are not deeply familiar with the PLC content. “At the site level, site supervisors can be sitting and observing classroom and holding basic coaching conversations,” said a PLC facilitator. This respondent noted that site supervisors must see coaching as part of their role for this strategy to be successful.

Organizational Supports

Talbert (2003) argues that a lack of system-level supports, such as time and materials, can keep an organization from creating the conditions necessary for a PLC to thrive. Our interviewees said that organizations looking for a return on their PLC investment in the form of stronger staff practices and higher-quality programs must first create the conditions that front-line OST staff need to practice and share their new skills. Too often, they said, front-line staff return to organizations that are not structured to provide the supports that will help them implement new practices or share insights with colleagues. One expert expressed the need for organizational support in this way: “All the changes that really occur in programs have to happen at the site level. Ultimately, whether it works or doesn’t work, the litmus test is what’s changing at the site level.”

The experts we interviewed suggested that the organizational supports staff must offer participating OST staff—particularly those who work directly with youth—the following supports:

- Paid time to plan and attend meetings. Designated planning time allows staff to anticipate potential implementation challenges.
- A list of approved content areas. Staff can select the content that interests them, and the organization will benefit by choosing mission-aligned content.
- A strong program structure with established routines. Helpful structures include dedicated space for programming, ample staff, and a consistent program schedule.
- A vision for how new skills align with program goals. Staff are more likely to use new practices if they understand how these practices contribute to organizational goals.
- A choice in the PLC process. Staff are more likely to fully engage in a PLC if they can decide whether to participate and choose the content they will learn.
- All needed materials. Without sufficient materials, staff can’t deliver new content or practice new skills.

Some of these supports may also be applicable to program administrators.

According to our experts, site supervisors are critical allies to help PLC participants share the expertise they have gained. Site supervisors can coordinate the recommended supports and arrange time for knowledge sharing by, for example, giving the PLC participant time on the monthly staff meeting agenda or rearranging schedules so that staff members can observe one another.

Interviewees urged site supervisors to stay abreast of the content covered in the PLC by checking in with staff and staying in contact with the facilitator. Site supervisors who are aware of the concepts covered in the PLC are better equipped to support their implementation. One facilitator who suggested regular check-ins with staff said:

“They need, at the site level, to have a site coordinator who is both invested and supportive and checking in with that staff member—checking in with them specifically on their [professional development].”

“Uh, I know that you went to the science learning community and I know that because I am cc’d on all the invitations. What did you do this week? Have you got any thoughts on how you want to implement this week?”

When planning a PLC, facilitators may want to consider how to advocate, on participants’ behalf, for necessary organizational supports. A few interviewees responded shared ways to use the PLC recruitment and application processes to signal to site supervisors the need for organizational supports. During recruitment, facilitators can ask site supervisors to describe the supports available to staff. Similarly, PLC applications can clearly define how much time supervisors must invest to stay familiar with PLC content. The promise of PLC learning is more likely to be fulfilled with key organizational supports, a supportive site supervisor, and careful facilitator planning. The facilitator of a STEM-focused PLC described the changes she’s seen accomplished through the PLC:

“The quality just skyrockets, in my view. In the last year, I’ve seen real transformations in 25 to 30 programs in terms of staff retention, program quality—any way you could measure it.”

When thoughtfully planned, these factors are a recipe for a high-impact PLC for OST providers.

Acknowledgment

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References


High-Impact PLCs for OST Providers

Prior research demonstrates that PLCs are practice-oriented, collaborative, content-rich, and iterative in that they rely on a learning cycle of questioning, learning by doing, and reflection (DuFour, 2004; Stoll et al., 2006). PLCs for OST youth workers can offer a multi-faceted professional development experience to support the multi-faceted layers of their work.

Purposeful planning can contribute to the success of PLCs in the OST field. The expert PLC facilitators we interviewed noted three key elements of a PLC that should be structured in particular ways to reap the biggest benefits for OST staff: opportunities to apply new skills, collaborative work, and guided reflection. Other PLC elements can—and should, according to our experts—be adapted to participants’ abilities and needs and to the goals of the PLC, these include the type of participants, curriculum, co-leadership, coaching, and organizational supports. The decisions made on these features may influence other elements. For example, coaching may contribute to participants’ increased ability to co-lead a PLC, or the participant type may influence whether to use a curriculum.

This study surfaced best practices for designing a PLC suited to the OST profession:

• Let PLC goals determine who participates
• Base curriculum decisions on PLC goals
• Scaffold learning to help PLC participants to become facilitators

When thoughtfully planned, these factors are a recipe for a high-impact PLC for OST providers.


According to the Harvard Family Research Project (2010), schools need collaborative partners to help children and youth thrive. For over a decade, afterschool programs have been positioning themselves as viable partners. After all, afterschool programs challenge students’ thinking, teach collaboration, and help children and youth find their passion.

Furthermore, in 2008, 56 percent of afterschool programs were located in school buildings (Paras & Lewis, 2009). Intentionally designed school-afterschool partnerships can have positive academic results (Bennett, 2015), increase social skills (Durik & Weissberg, 2007), and improve attendance (Chang & Jordon, 2013). Addressing these factors could help our educational system close the achievement gap between low-income students and their more affluent peers. The depth of partnerships between afterschool programs and schools has been shown to improve student academic outcomes (Bennett, 2015).

However, school-afterschool partnerships are more often promoted (and included in grant proposals) than fully realized. Current partnerships are often limited to daily attendance and behavior reports. School leaders accept that afterschool programming is important, even
as they discount its worth by treating it as entirely sepa-
rate from the school. Meanwhile, afterschool program
leaders may be pulled from full partnerships with schools
because of the immediacy of program needs, among
other reasons. Educators on both sides are missing op-
portunities because of the immediacy of program needs,
which both school and afterschool leaders had high levels of agreement on all three scales as “highly
aligned,” and sites where school and afterschool leaders showed substantial disagreement as “misaligned.”
Bennett then examined more than 8,000 student stan-
dardized test scores to find that students at highly aligned sites performed better than did students at misaligned sites.

Methods
Our research involved a limited study of three afterschool programs located in schools. They are typical cases of funded learning opportuni-
ties in out-of-school time, represen-
ting varying degrees of school
partnership. Such cases can be
useful for research purposes (Lichtman, 2013) because they may be representative of common prac-
tices and experiences among school
and afterschool personnel and can help researchers identify practices that warrant further
study.

Three K–6 school-afterschool sites in one urban school district in southern New England were chosen at random for study. Site A was located in a lower-income neighborhood and served families with significant needs. Site B was located in a more affluent area of the city but drew students from a nearby housing complex. Site C was also in a low-income area, but the neighborhood had more single-family homes and less crime than did Site A. Site A and Site C were representative of successful afterschool programs studied at Sites A and B offered such typical programming as homework help, physical activity, and academic enrichment. Site C hosted a theater program that had a long relationship with the schools it served. All three programs were just one of many in their sites, sharing the school with as
many as five additional program providers.

All three programs received a mix of funding, in-
cluding state grants, 21st Century Community Learning Center grants, and local philanthropies. Typically these
funders require school districts to partner with a community agency. The district and community sup-
ported the alignment of learning through initiatives funded by a com-
munity network of afterschool provi-
ders and the school district (Wheeler, 2014).

A total of 18 individuals were interviewed, six from each site: the
principal, the afterschool program director, the afterschool site super-
visor, one afterschool front-line staff member, and two school teachers. School district staff helped to iden-
tify appropriate interviewees and provided contact information.

The primary data collection tool was an 11-question interview
guide based on Bennett’s (2015) framework. Every interview ques-
tion addressed one of Bennett’s three areas: sharing of academic resources, sense of partnership, and communica-
tion. Questions asked respon-
dents to describe the relationship between school and afterschool pro-
grams, the communication with the school or the afterschool staff, and any sharing of academic resources.

Other questions focused on the depth of the relationship, for example, the level of engagement of the principal and
school leadership, afterschool staff training in curriculum delivery, and afterschool alignment with the school day.

One-on-one interviews were conducted in private of-
cices at either the school or the community-based organiza-
tion. After all 18 interviews were completed, the data were analyzed through an open-coding method that al-
lowed for codes to be refined and themes to be developed.

Perhaps our most salient finding was a disconnect between
school and afterschool staff. However, school and afterschool staff described informal structures and opportuni-
ties that could contribute to more substantial connections.

The State of School-Afterschool Relationships
Substantial research has shown that, in order for
communities to reap the academic and social benefits of
afterschool education, schools and afterschool programs must work together. Durlak, Weissberg, 
Project (2010) asserts that “in-school and non-school supports [should] collaborate as equal partners to work with
parents to share a vision for children’s learning” (p. 2).

School leaders would seem to agree. In a nationwide
survey (Daniels, 2012), 82 percent of school superinten-
dents said that afterschool programs are important, citing the social-emotional and academic benefits; 75 percent
reported that they encouraged principals to work with
community-based organizations to offer stronger after-
school programs.

However, developing partnerships between schools and
community-based organizations takes time and ef-
fort (Wallace Foundation, 2010). The perceived differ-
ence between youth development and formal educa-
tional approaches can impede conversations. Romi and
Schmida (2007) assert that the two philosophies are in-
extremely linked; with good communication, practitio-
ers of both can share their craft and art. Both partners
need to be thoughtful about the pro-
cess, designing and building the system together and adjusting the relationship to keep it sustainable (Yohalem, Devanez, Smith, 
& Wilson-Shapiro, 2012) in order to build trust and a common vision. This common vision begins with “identifying and recruiting stake-
holders from multiple backgrounds, representing all aspects of a child’s life” (Anderson-Butcher et al., 2008, p. 160).

Our work is based on a frame-
work proposed by Ken Anthony (2015), which in turn builds on two
studies by Gil Noam and colleagues.
The first of these (Noam, Buncarosa, 
& Dechausey, 2003) defined a bridging continuum of school-community
partnerships, from self-contained programs, which make
little attempt to collaborate with schools, through associ-
ated, coordinated, integrated, and finally unified programs. The last represents a seamless learning day, with little
differentiation between the school and afterschool
environment (Noam et al., 2003). The second study (Noam et al., 2004) identified “four Cs” of successful af-
terschool programming: collaboration, communication, content, and coheren-
tce. Bennett (2015) refined these structures into a frame-
work measuring alignment between schools and afterschool
partners. The framework has three key areas: sharing of academic resources, sense of partnership, and
communication. Bennett surveyed school principals and
afterschool staff in 78 schools in 11 southern California
districts about the extent to which they perceived align-
ment between the school and afterschool program, de-
fining alignment as “specific collaboration practices be-
tween afterschool programs and schools that attempt to coordinate student learning as they transition from the
regular school day to the afterschool program” (p. 1). She
defined sites in which both school and afterschool leaders
had high levels of agreement on all three scales as “highly
aligned,” and sites where school and afterschool leaders
showed substantial disagreement as “misaligned.”

Bennett then examined more than 8,000 student stan-
dardized test scores to find that students at
highly aligned sites performed better than did students at misaligned sites.
The code disconnection was particularly salient; it appeared in all 18 interviews. All three afterschool directors emphasized this disconnection. The Site B director said, for example, “I think half of the time, some principals don’t even know what some afterschool programs … provide.”

The first finding emerged during data collection: The principals did not appear to be involved in the afterschool program. Afterschool programs included summer camps, latchkey programs, homework help, day programs, and more. Site A director, Site B director, and Site C director reported that the lack of involvement was particularly salient; it appeared in all 18 interviews. All three afterschool directors emphasized this disconnection. The Site B director said, for example, “I think half of the time, some principals don’t even know what some afterschool programs … provide.” Similarly, the director at Site C stated, “No one from the school staff would check in on what we were doing, sometimes not even responding to invitations … to come see what the kids are doing.” The Site A director described a lack of involvement with the school and its teachers, saying that she had no idea what went on in classrooms or staff meetings. School teachers also described a lack of connection. A teacher from Site B summed it up: “There is no partnership at all. We don’t have any interaction with [the afterschool program].” A Site A teacher said that student performance might trigger communication, “but beyond that, it’s really separate.”

Lack of collaboration and coordination was evident, for example, when the Site C principal insisted that “any thing that happens within the building afterschool needs to go through me.” This assertion sounds more autocratic than collaborative. This same principal was open to increasing collaboration between school teachers and afterschool staff if “their educational piece in the afterschool” were “linked to what we do here.”

School and afterschool staff talked about the need for meetings and better communication. Afterschool staff wanted ongoing dialogues to help school staff better understand the afterschool program. The principal at Site C seemed to agree that regular meetings could improve communication, seeing such meetings as a way to bring grade-level teams together to create targeted interventions that could bridge the school and afterschool environments. In terms of communication systems, the Site B principal suggested a streamlined system that would target student needs, such as a check sheet or other method of informal communication, suggesting that otherwise afterschool staff might inundate teachers. The afterschool director at this site suggested that email would be an efficient method of communication “if we had even just the email list provided by the school for the children in our class, who had not. Though initially troubling, the brevity of responses emerged as a finding that reinforced all interviewees’ perception of a disconnection between school and afterschool.

The iterative coding process revealed 25 codes in the data, 22 of which appeared in responses from all three sites. These 25 codes fell into five major themes:

- **Misalignment**
- **School administrative support for the afterschool program**
- **Informal structures and opportunities**
- **Program elements**
- **Barriers**

**Misalignment**

Interview responses that were coded disconnection, collaboration and coordination, need for meetings, and need for communication fell into the category of misalignment. The code disconnection was particularly salient; it appeared in all 18 interviews. All three afterschool directors emphasized this disconnection. The Site B director said, for example, “I think half of the time, some principals don’t even know what some afterschool programs … provide.” Similarly, the director at Site C stated, “No one from the school staff would check in on what we were doing, sometimes not even responding to invitations … to come see what the kids are doing.” The Site A director described a lack of involvement with the school and its teachers, saying that she had no idea what

**School Administrative Support for the Afterschool Program**

The theme of school support for the afterschool program includes such codes as administrative-level communication and depth of principal involvement. The relatively large number of responses related to administrative communication and follow-up suggest that communication about such day-to-day concerns as homework assignments did take place at the study sites. The afterschool director at Site B reported, “Our staff gets the attendance from the day to ensure that we get the proper kids for the afternoon that were in school.”

Evidence of deeper communication beyond purely administrative tasks was rarer. Four afterschool and one school respondent talked about the importance of shared academic goal setting. However, they did not indicate that such sharing actually took place at their sites. The afterschool directors at all three sites said that they had initial meetings with their school principals at the beginning of the year. The principal at Site B noted that she had little communication with the afterschool program, “other than behavioral concerns of that type of thing.” However, she reported that she had regular contact with a school-afterschool liaison whose position was funded by the state. The afterschool director at this site, by contrast, did not mention the liaison. She indicated that she met with the principal as needed but described a substantial connection with the school secretary on logistical issues. The afterschool front-line staff seemed to perceive an informal and general relationship between the program and school administration. The Site B staff member said, “The principal tells us that there’s any issues—anything we need whatsoever—don’t hesitate to contact them. If I’m at the school and I run into the vice principal and whoever, they’re always asking how things are going. They’re very concerned. The afterschool staff member at Site A had a similar assessment. The assistant principal pops in once in a while. She’ll … say ‘Hi to the kids and see how everything is going.’ The principal at Site B described how the school helped to introduce children into afterschool programs by asking teachers to identify students who could benefit. She also described her lack of involvement in the community-based program, saying that she got involved only in “logistics things” such as busing and parent pick-ups. The principal at Site C was disappointed in a lack of communication about student recruitment.” I didn’t have a whole lot of say on how they were inviting kids to participate, and that was a problem.” This principal said that the letter sent by the afterschool program to parents about the child’s status in the program was misleading. She concluded, “I think that next year I would like to look over what they write.” She wanted to work with teachers to recruit children who could benefit most into the afterschool program.

According to Newmann, King, and Youngs (2000), the creation of partnerships outside of the school is the responsibility of the school principal. A hands-off approach on the part of school principals does not set a tone of collaboration between school and afterschool staff.

**Informal Structures and Opportunities**

The theme of informal structures and opportunities included interview responses that were coded into such categories as homework and informal relationships, among others. Nearly all afterschool staff members described having informal connections with the school teachers. The afterschool director at Site B described a typical situation:

“If there is something that’s going on with the child, and he doesn’t understand homework or forgot their homework in the classroom, our staff takes the kids to the teacher. They go and ask for help, ask for clarification, or go get the homework … so they’re always visiting with the school-day teacher.”

Some afterschool staff said that they ascertained what academic content children were studying by looking at their homework. School teachers did not provide them with any direct information about students’ homework, but rather that they did have “strong, based links with afterschool staff. However, the principal at Site B said that afterschool staff might “ask questions on how to assist the kids with their homework” or check on children who say they don’t have any homework.

Three afterschool staff members described using informal connections to work around lack of information shared about students due to confidentiality rules. The front-line afterschool staff member at Site C said, “If the student comes from a home of abuse or neglect, or is...
an easy on-off switch for having a crisis, we’re not given that information. We’re only given medical info.” She then spoke about “having … school staff on site” and that information. We’re only given medical info.”

School staff addressed training as an indicator of afterschool program quality. One teacher cited the importance of “how well the personnel is trained and how well they can work with kids.”

These afterschool respondents believed that their programs were facilitating important learning, whether the content was strictly academic or also social-emotional. Along those lines, the afterschool director at Site C outlined the substantial credentials of program staff. All of the lead teaching artists have either degrees—in some cases a couple of advanced degrees in theater or in education—or extensive, 10 or 20-plus years of experience working in theater, especially working with children in theater, writing, directing, performing. So I’m working with theater professionals.

The afterschool director’s perception of staff qualifications encompasses the diverse experience afterschool practitioners bring to their work.

Barriers
The theme of barriers included codes for professional development, expectations and qualifications for afterschool staff, and territorialism. School staff addressed training as an indicator of afterschool program quality. One teacher cited the importance of “how well the personnel is trained and how well they can work with kids.” The principal at Site C and the teacher at Site B both raised issues about how the afterschool staff managed student behavior. The teacher said that “one of the afterschool programs had a lot of difficulty with having some of the kids, and so they had to bring in … more structured staff.” The principal at Site C seemed to have some respect for the training of the afterschool staff. “The osite coordinators go through quite a bit of training on how to manage peers of their own age, because, I mean, they are young. … They all go through quite a bit of training.”

Some responses, particularly from afterschool staff, indicated openness to joint professional development; one said, “I think if they maybe had a professional development with us at their school, it would be helpful.” A teacher from Site C said that the “young kids” working in the afterschool programs might want to “look for help” from the school staff. “If they put that out there, I’m sure the people in the building would be more than willing to give them a hand.” A teacher at Site B, by contrast, said, “Even if [afterschool program staff are] trying to commu-

nicate with us about what they’re working on or things that they have coming up, I don’t necessarily know if all the teachers would be accepting of it.” The teachers seemed to feel that they had something to offer the after-
school staff but that some teachers might not be willing to accept initiative coming from the afterschool side.

Both school and afterschool staff described issues with sharing space. Territorialism on the part of teachers was cited, for example, by the afterschool staffer at Site C, who ran an activity out of the teachers’ lunch room. “Something that was said that maybe we shouldn’t be in there because, if a teacher has to come in and use the telephone, they don’t have the pri-

vacy that they wanted.” The after-
school director at Site A spoke of how the school staff had to know exactly where in the school each af-
terschool activity was taking place at any time. Even the principal at Site C perceived territorialism on the part of her staff. “The sharing of space, classrooms—teachers can be very, very possessive of their mate-

rials and … the cleanliness of their room, or the organization of their room.” Lack of trust about some things as basic as space use does not help to build the relationships needed to align goals and work to-

together to serve children.

Conclusions and Recommendations
Review of the interview responses led to five conclusions related to the five themes into which the interview data fell: misalign-

ment, school administrative support for the afterschool program, informal structures and opportunities, pro-

gram elements, and barriers. For each of these conclu-
sions, we offer recommendations based on our experi-

ence in the field.

Recommendations on Misalignment
The first conclusion is that school and afterschool leaders need to experience substantial misalignment that im-
pedes collaboration. One way to foster coordination is shared planning, starting with shared meetings. Afterschool directors could ask to report at school staff meetings and request that their staff be invited to teacher planning meetings. They could pay staff members who are able to attend out of professional development funds. In turn, teachers—especially those whose classrooms are used by the afterschool program—may find it beneficial to attend planning sessions at the afterschool program.

Even with differing missions, school and afterschool staff can complement and build on each other’s work and share their expertise.

A hands-on approach by the school principal may facilitate collaboration (Newmann et al., 2000). For ex-

ample, the principal can arrange for the schedules of some staff, including teachers and counselors, to be stag-
ggered slightly so they can welcome the afterschool staff and discuss the major events of the day. Samuelson (2007) describes the roles principals can take in creating school-afterschool connections: fa-

cilitating regular communication, serving as liaison between school and afterschool staff, and supporting the afterschool program as an integ-

ral part of the school.

Recommendations on School Support
Our second conclusion is that the deepening of the school and after-
school personnel perceive that the school supports the afterschool program is affected by the relationships between members of each group and by individuals’ personal experi-

ences. Being aware of the social fabric of the school can help afterschool programs build more school sup-
port. For instance, if the school places a premium on par-
ticular values, such as citizenship, spirit, or compassion, afterschool staff can create programming that supports these values.

Another possibility is that the principal schedule visits at key points during the afterschool pro-

gram to take a “learning walk” (Russo, 2006): Such obser-
vations can be an opportunity to show the principal how the afterschool program contributes to the academic, so-
cial, emotional, and physical growth of students.

Recommendations on Informal Structures and Opportunities
Our findings suggest that, even without formal adminis-

trative support, school and afterschool staff develop ad-

Samuelson (2007) describes the roles principals can take in creating school-afterschool connections: facili-
tating regular communication, serving as liaison between school and afterschool staff, and supporting the afterschool program as an integral part of the school.
School educators must hold a degree in their field; most are also certified. They may look down on afterschool staff, some of whom do not have degrees and many of whom hold degrees in unrelated areas. However, an increasing percentage of afterschool workers are seasoned professionals. A workforce survey by the National Afterschool Association (2015) found that 38 percent of the workforce had been with their current employer for 10 or more years.

Over time, the perceived professionalism of afterschool staff will improve with the increasing trend in higher education of offering credentials or degrees in after-school and youth development in schools of education, as in, for example, the University of Illinois at Chicago (2016), Rhode Island College (2016), and University of Minnesota (2016). Formal and informal education degrees can influence one another and even overlap—to the benefit of all educators-in-training, whether their careers take them to schools or to community-based organizations.

In our experience, afterschool and school educators have much to offer one another. Afterschool staff can ably teach how to respect youth voice and afterschool programs housed in schools in one community. It highlights steps toward dialogue that can create a shared vision of student learning, particularly around informal relationships, principal leadership, fuller dialogue, and shared professional development. Both school districts and citywide coalitions need to provide the infrastructure that would support ongoing communication and encourage sharing. Conversations between school and afterschool partners need to be founded on trust, not speculation or notions of morality. We owe our students innovative learning experiences that are not limited by the school walls or by lack of coordination among the institutions that seek to educate them.

References
Coordinated systems that bridge in-school and out-of-school learning can support the holistic development of students. This study highlights the opportunities and barriers faced by afterschool programs housed in schools in one community. It highlights steps toward dialogue that can create a shared vision of student learning, particularly around informal relationships, principal leadership, fuller dialogue, and shared professional development. Both school districts and citywide coalitions need to provide the infrastructure that would support ongoing communication and encourage sharing. Conversations between school and afterschool partners need to be founded on trust, not speculation or notions of morality. We owe our students innovative learning experiences that are not limited by the school walls or by lack of coordination among the institutions that seek to educate them.


Limitations
This study had three major limitations. The first is sample size and selection. Findings from interviews with 18 educators from one school district can suggest avenues for action but cannot be generalized. A second limitation is that all information was self-reported and therefore subject to bias. The actual state of the relationship between the school and afterschool programs cannot be verified without observations. The third limitation is researcher bias. Ken Anthony, who conducted the interviews and did the analysis, has been in the afterschool field for 21 years and has shared the experiences of many of the afterschool respondents. The analysis may have amplified the perceptions of the afterschool providers, while discounting the perspectives of the school educators.

38 percent of the workforce had been with their current employer for 10 or more years.


Afterschool Matters

Call for Papers

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

We are seeking articles for future issues of the journal, beginning with Fall 2017. Scholarly or practice-based work on all aspects of OST programming for children and youth, from a variety of disciplines and academic perspectives, will be considered. We welcome submissions that explore practical ideas for working with young people in OST programs. Personal or inspirational narratives and essays are appropriate for our section “Voices from the Field.”

All articles, whether scholarly or practice-based, should connect theory to practice and should be broadly applicable across the field. Articles must be relevant and accessible to both practitioners and academic researchers.

We invite you to discuss possible topics in advance with us. A broad variety of topics will be considered, including the following:

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

Submission Guidelines

- For consideration for the Fall 2017 issue, submit your article no later than January 10, 2017, to ASMsubmission@wellesley.edu.
- Submissions should not exceed 5,000 words.
- Submit your article electronically in Microsoft Word or rich text format. Use 12-point Times New Roman font, double-spaced, with one-inch margins on all sides. Leave the right-hand margin ragged (unjustified), and number pages starting with the first page of text (not the title page, which should be a separate document).
- Include a separate cover sheet with the manuscript title, authors’ names and affiliations, and the lead author’s phone number and e-mail address.
- The names of the authors should not appear in the text, as submissions are reviewed anonymously by peers.

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