



Connecting Afterschool Program Quality to Social, Emotional, and Literacy Skill Development

Neil Naftzger, Kathryn Wheeler, and Georgia Hall

Recent research syntheses (see, for example, Naftzger & Newman, 2021) have detailed how afterschool programs can support youth learning and development, including social and emotional learning, interest development, increased engagement in school, and a variety of school-related outcomes. However, one area that has received less attention is how afterschool programs that meet established quality benchmarks can support the development of social and emotional skills and of literacy skills among participating children.

Our descriptive study explored the relationship between sustained attendance in high-quality 21st Century Community Learning Centers (CCLC)-funded programs and key child outcomes. Our key hypothesis was that high-quality programming is associated with the development of social and emotional skills, which in turn may be related to academic skills such as literacy.

Study Methods

During two consecutive years, we followed 655 children from 54 21st CCLC-funded programs in two states: 31 centers in Massachusetts and 23 in Minnesota. The study included 276 Massachusetts

NEIL NAFTZGER, PhD, is principal researcher in Youth, Family, and Community Development at the American Institutes for Research®.

KATHRYN WHEELER, EdD, is a research associate at the National Institute on Out-of-School Time (NIOST) at the Wellesley Centers for Women at Wellesley College, **GEORGIA HALL**, PhD, is director and senior research scientist at NIOST.

Table 1.
Demographic Characteristics of Study Students

| Characteristic | Massachusetts | Minnesota |
|-----------------------------|---------------|-----------|
| Female | 50% | 57% |
| Race/ethnicity | | |
| White | 38% | 34% |
| Hispanic | 30% | 24% |
| Black | 10% | 12% |
| Multiracial | 10% | 8% |
| Asian | 12% | 5% |
| American Indian | 0% | 5% |
| Economically disadvantaged* | 52% | 73% |
| English learner | 30% | 22% |
| Special needs | 12% | 12% |

* Based on participation in state-administered assistance programs
Sources: Massachusetts Student Information Management System and Minnesota Automated Reporting Student System

children who were in grade 1 during the first year of the study, 2016–2017, and 379 Minnesota children in grade 4. Their demographic information is shown in Table 1.

The study included only programs with a track record of providing quality afterschool programming. Studies have shown that programs are more effective when they are high quality (e.g., Durlak et al., 2010). To measure program quality, members of the research team conducted program observations using the Assessment of Program Practices Tool (APT-O; NIOST, n.d.a) in Massachusetts and the Youth Program Quality Assessment (YPQA; Forum for Youth Investment, n.d.) in Minnesota. Both are quality assessment tools commonly used in the afterschool field. They share a set of principles of program quality that underlie both program effectiveness and the ability of programs to support social and emotional learning (Jones et al., 2017). Quality programs:

- Provide a safe and positive environment for children and adults
- Support the development of high-quality relationships between adults and children
- Provide activities that are developmentally appropriate, relevant, and engaging
- Provide opportunities for direct skill building (Jones et al., 2017)

We used the teacher version of the Survey of Academic and Youth Outcomes (SAYO; NIOST, n.d.b) to measure changes in social and emotional skills among children in the study. Originally developed by NIOST and the Massachusetts Department of Elementary and Secondary Education for use in 21st CCLC programs, the teacher version (SAYO-T) measures children’s growth in the following skills:

- Engagement in learning
- Critical thinking
- Self-regulation
- Leadership
- Perseverance
- Interactions with adults
- Interactions with peers

We solicited SAYO-T surveys from one school-day teacher and one afterschool activity leader for each child. We collected the SAYO-T four times: in fall 2016, spring 2017, fall 2017, and spring 2018. In total, we received 4,245 surveys.

We also collected data on the attendance of children in the study from the 54 programs. Analysis of these data aimed to reveal the extent to which children’s rate of attendance in the 21st CLCC programs affected their SAYO-T scores.

Using the subsample of 225 Massachusetts children in grade 2 during the second year of the study, we collected data on growth in literacy skills using the Oral Reading Fluency (ORF) test associated with the Dynamic Indicators of Basic Early Literacy Skills family of reading assessments (DIBELS, n.d.). The ORF test measures children’s ability to read connected text accurately and fluently. We aimed to examine how literacy development may be related to program quality, attendance, and the skills measured by the SAYO-T.

Quality, Life Skills, and Literacy

We used quality ratings from the APT-O and YPQA to explore how sustained enrollment in higher-quality 21st CCLC programs was related to development of social and emotional skills in the full sample of children and to development of literacy skills in the sample of children in grade 2 in Massachusetts. APT-O and YPQA quality ratings include areas such as the nature of the activities, organization, schedule, social and emotional

environment, how staff promote engagement, and relationships.

Massachusetts centers consistently achieved high scores on the activity-level sections of the APT-O. This result is unsurprising, because these centers were chosen for the study because they met standards for “exemplary” programs. The convenience sample of Minnesota centers had a broader range of scores on the “instructional total” segment of the YPQA; these centers likely reflect average quality in 21st CCLC programs. To enable statistical comparison of centers evaluated using two different instruments, we classified all centers into quality quartiles based on their quality scores on their state’s assessment tool. Centers in quartile 1 demonstrated the lowest level of quality and centers in quartile 4 demonstrated the highest.

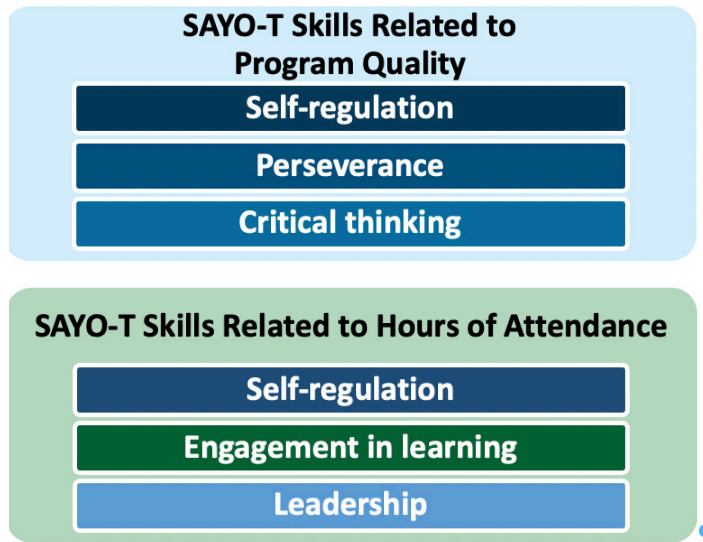
Social and Emotional Skills

We assessed the degree to which program quality and attendance in 21st CCLC programs were related to growth, between fall 2016 and spring 2018, in the social and emotional skills assessed on the SAYO-T. We hypothesized that enrollment in higher-quality programs and higher levels of program attendance would be associated with more growth in the SAYO-T measures. Figure 1 summarizes the findings.

Attending a higher-quality program was associated to a significant degree ($p < .05$) with growth in two SAYO-T skills: *self-regulation* and *perseverance*. A moderately significant ($p < .10$) relationship was found between quality and *critical thinking*. Children grew more on these scales if they attended a center with a higher level of observed program quality. The difference between centers at the lowest level of observed program quality and those at the highest level was an average of 0.30 to 0.36 additional points of growth on the SAYO-T scale of 1 to 5.

Higher levels of attendance in 21st CCLC programming during the two years of the study were associated with significant ($p < .05$) growth on two SAYO-T skills: *self-regulation* and *engagement in learning*. The relationship between attendance and *leadership* was moderately significant ($p < .10$). On average, each 100 hours of programming attended was associated with 0.06 to 0.08 points of growth. The average hours of attendance per child across the sample was 341 hours.

Figure 1. Program Quality, Attendance, and Skill Growth



Literacy Skills

Next, we explored how growth on the SAYO-T skills associated with program quality or attendance was related to the development of literacy skills among the Massachusetts second graders. We explored:

- The connection between sustained participation in high-quality 21st CCLC programming and literacy skills in grades 1 and 2
- The role that social and emotional skills may play in literacy skill building

A key finding was that improvement in SAYO-T outcomes was related to improvement in the number of words students read on the ORF test. Students who demonstrated more growth in the SAYO-T skills linked to program attendance and quality (*self-regulation*, *perseverance*, *critical thinking*, *leadership*, and *engagement in learning*) also demonstrated more improvement between pretest and posttest in the number of total words read. Specifically, students who improved in five or more items on the SAYO-T subscales linked to program attendance and quality read, on average, 4.44 more words than did students who did not demonstrate this degree of SAYO-T improvement. Students in the sample read an average of 96 words on the ORF posttest. Although the degree of improvement was relatively small, this result suggests that the growth demonstrated on the SAYO-T may relate to the development of literacy skills. This finding is noteworthy because few studies have focused on the

role of afterschool program participation in supporting literacy skill development in the early elementary grades.

In addition, we found that a higher level of program quality (as measured by portions of the APT-O) was associated with a greater percentage of words read accurately. Students attending high-quality centers, on average, improved their percentage of words read accurately by 0.4 to 0.6 percentage points. The difference between a center in the bottom quality quartile and a center in the top quality quartile reflected an improvement of 1.2 to 1.8 percentage points, which on average represents one or two more words read accurately in a passage in the ORF assessment.

The average ORF pretest score was 90 percent, leaving relatively little room for improvement between the pretest and the posttest. Furthermore, the study included only programs that met quality benchmarks to begin with. In the future, a study examining programs with wider variation in program quality may demonstrate a more meaningful relationship between program quality and literacy skill growth.

Summary and Recommendations

Our results provide support for (but do not prove) the hypothesis that sustained enrollment in high-quality 21st CCLC programs may be related both to a set of social and emotional skills and to the development of literacy skills in the early elementary grades.

We found that growth in five social and emotional skills measured by the SAYO-T—*self-regulation, perseverance, critical thinking, engagement in learning, and leadership*—was greater for children who were enrolled in higher-quality programs, attended more regularly, or both. In turn, growth in these skills was significantly related to improvement in the number of words children could read on the ORF test.

The limitations of this study include the fact that the analyses were descriptive and correlational; they cannot establish causation. The results do not imply that particular practices cause certain skill development to happen. Furthermore, although the associations related to growth in literacy skills were positive, as expected, the magnitude of these relationships was not large. We cannot say that improvements in social and emotional skills or higher levels of program quality were associated with great advances in students' literacy skills. However, the encouraging results indicate that further study is needed.

Of the five SAYO-T skills influenced by program quality, attendance, or both, four are aligned with

behaviors that support young people as they engage in cognitively oriented learning tasks. *Self-regulation, perseverance, engagement in learning, and critical thinking* are intrapersonal skills necessary for managing one's own learning. The finding that these skills are related to program quality and attendance may have ramifications for future studies seeking to understand which skills may be especially supported by sustained participation in high-quality 21st CCLC programs for elementary school-aged youth. Future studies can systematically collect data on development of social and emotional skills and of early literacy skills. These areas have not been adequately explored in studies evaluating the effectiveness of 21st CCLC programs.

In light of study findings, we recommend that afterschool programs consider adopting the following practices:

- Using tools like the APT-O and YPQA to help staff adopt practices that support program quality and the development of social and emotional learning skills among program participants

Literacy Strategies

Another part of our study examined materials provided by the Massachusetts 21st CCLC sites to examine how these programs promoted literacy development (Wheeler et al., 2022). We found three main sets of strategies:

1. Direct literacy instruction: offering children hands-on opportunities to speak or perform publicly, read independently or in a group, write, and get homework support
2. Broad literacy strategies: engaging children in activities tied to literacy, such as conducting research, analyzing what they read, learning new vocabulary, and making multidisciplinary connections
3. Contextual supports for literacy learning: fostering literacy development by supporting the adults who work with children through professional development for program staff, coordination with school personnel, and family engagement

For details, see our article in the spring 2022 issue of *Afterschool Matters* (Wheeler et al., 2022).

- Intentionally pairing practices that support social and emotional learning with those that support literacy development in the design and delivery of afterschool activities serving children in the early elementary grades

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