A Summary of Findings–Neil Naftzger, PhD

Introduction

Since 2011, the American Institutes for Research® (AIR®) and its partner, the Diehl Consulting Group, have supported evaluation activities related to the Community Schools Initiative (CSI) administered by Chicago Public Schools (CPS). Prior to the onset of the COVID-19 pandemic, AIR was working with CPS CSI to explore the relationship between youth experiences in afterschool programming supported by the 21st Century Community Learning Centers (21st CCLC) program and positive developmental outcomes for participating students. Central to this effort were two youth surveys: (1) the Youth Motivation, Engagement, and Beliefs (YMEB) survey and (2) a youth experience survey collected after students participated in CSI-provided afterschool programming. The constructs measured on both the YMEB and youth experience surveys are important to understanding how youth potentially benefit from their participation in CSI-supported afterschool programming, including how participation may support student engagement and connection to school.

This purpose of this document is to summarize the conceptual framing we used to guide development of the survey measures; what we learned from administering these surveys; and what these results may mean for future efforts to implement and use similar measures. In this document, we first detail the research underpinning the YMEB survey and then describe key findings from the administration of this survey. We then repeat this process for the youth experience survey. Next, we describe how YMEB and youth experience survey results were found to be related to the school climate and culture outcomes measured by the 5Essentials survey. Finally, we end the document by highlighting the types of practices that can be adopted in afterschool and summer programs to help support the types of experiences that support positive youth development.

Youth Motivation and Engagement Survey

The Youth Motivation and Engagement Survey (YMEB) is administered to youth to assess their experiences in afterschool programming, how they benefit from participation in programming, and how they function on a series of youth development outcomes. The survey was originally developed by the Youth Development Executives of King County, Washington to support its Road Map Project, a regional collective impact project. AIR helped revise the survey and has been using it since 2015 as an outcome measurement tool in various statewide evaluations of the 21st CCLC program. The YMEB measures several youth outcomes, although the version used as part of the CSI evaluation efforts explored youth outcomes in two primary ways:
• **Items pertaining to a youth’s sense of how they may have been affected by participation in afterschool programming.** The purpose of these items is to explore the extent to which youth believe afterschool programming helped them in terms of developing positive development outcomes, such as developing new interests, a positive self-concept, and new friendships. Examples of items include *This program has helped me to make new friends* and *This program has helped me discover things I want to learn more about*. This set of items represents the most direct way youth can communicate how they benefit from participation in afterschool programming.

• **Items pertaining to how youth report functioning at present when taking the survey on a series of areas related to positive youth development and social and emotional outcomes.** The purpose of these items is to gauge how well youth describe themselves in three key areas: (a) maintaining a positive mindset when trying new things and when encountering challenges; (b) perceptions of their interpersonal skills, and (c) self-esteem. Examples of items include *I try things even if I might fail* and *I focus on my goals, even when it is difficult* (mindset); *I work well with others on group projects* and *I respect what other people think, even if I disagree* (interpersonal skills); and *Overall, I am satisfied with myself* (self-esteem).

During the 2018–19 school year, a version of the YMEB survey was administered to students participating in CSI-provided afterschool programming in 11 schools associated with the FY13 and FY15 cohorts of schools believed to represent higher implementation of the CSI strategy. The survey was administered on a pre-post basis to a sample of 268 students in Grades 6 to 12 attending CSI programming in both the fall and spring semesters of the 2018–19 school year. Many of the items appearing on this version of the YMEB were informed by research on how youth development programs can support positive outcomes for students.

**Youth Agency and Positive Self-Concept**

Youth can develop positive mindsets and beliefs about their capacities, including confidence and a sense of self-efficacy by participating in high-quality afterschool programs. Many of the opportunities afforded to youth in these programs include experiencing a sense of agency by allowing choice and autonomy in program offerings (Beymer et al., 2018; Larson & Angus, 2011; Naftzger & Sniegowski, 2018; Nagaoka, 2016). This sense of agency is particularly important starting in early adolescence because it enables youth to use their emerging cognitive skills, such as higher order reasoning and greater executive control of their own thought processes, to more effectively solve problems and take the steps needed to achieve their goals (Larson & Dawes, 2015). Youth are provided with feedback about what they can accomplish and their ability to solve problems and overcome challenges, enhancing an underlying sense of self-efficacy and competence. Providing youth with such opportunities has emerged repeatedly as being significantly related to both youth engagement and improvement on pre- and post-development outcomes in other studies published by the evaluation team (Naftzger et al., 2018; Naftzger & Sniegowski, 2018).
The successes that youth experience while participating in afterschool programs also support their development of a positive self-concept and improved self-esteem. Consequently, when youth reflect on how they benefit from participation in afterschool programs, they report that attending the program helped them feel good about themselves (Naftzger & Sniegowski, 2018). Larson and Dawes (2015) noted that program staff can play a crucial role in supporting and stabilizing youths’ sense of efficacy when encountering challenges or self-doubt while participating in programming.

**New Sustained Interests**

Afterschool programming can offer youth the opportunity to experience new things, which supports identity development, the ability to make sense of themselves and the world around them, and develop new interests in domain-specific content areas such as STEM and the arts. Interest development is a critical component of youth development and has been linked to numerous motivational elements related to learning, including goal-directed behavior, self-efficacy, self-regulation, and achievement value (Renninger & Hidi, 2011).

For example, one recent study found that two of the top three ways that youth report being affected by attending afterschool programming was that doing so helped them (a) discover things they wanted to learn more about, and (b) find out what they like to do (Naftzger & Sniegowski, 2018). According to Renninger and Hidi (2011), the latent potential for interest in a particular area to develop is present in a person’s genetic makeup, and interactions with the environment help determine whether it develops and is sustained. We hypothesize that experiences in high-quality afterschool programs help youth navigate this interest development process by affording them the opportunity to try many different types of activities and dive more deeply into areas in which they discover they are especially interested.

**Belonging and Mattering**

Youth participating in high-quality afterschool programs can experience a sense of belonging and mattering through positive and supportive relationships, both with activity leaders and their peers in the program (Akiva et al., 2013; Auger et al., 2013; Durlak & Weissberg, 2007; Kauh, 2011; Larson & Dawes, 2015; Miller, 2007; Naftzger & Sniegowski, 2018; Traill et al., 2013). These experiences are important because youth who have positive relationships and meaningful friendships demonstrate better emotional well-being, prosocial behaviors, and better academic performance than youth lacking such relationships (Wentzel et al., 2012).

**Knowledge and Skills**

Youth participating in high-quality afterschool programs have the opportunity to learn new content and develop and practice new skills. For example, the development of interpersonal skills has been commonly identified by afterschool practitioners as one skill domain in particular that appears to be positively improved by sustained youth participation in programming (Sniegowski et al., 2019).
We also hypothesize that participation in high-quality afterschool programming will afford youth the opportunity to develop new knowledge and skills that will help them better understand what they excel at, what they value, and what they would like to do more of or learn more about as they make the transition to higher grade levels, where they have more choice in what classes they take.

**YMEB Survey Results: Self-Reported Youth Development Outcomes**

Building from the concepts described in this literature base, students taking the YMEB survey in the 2018‒19 school year were asked to identify how they may have been affected by participation in the program by identifying the top three areas in which they felt the program had helped them the most. Exhibit 1 provides the percentage of responding youth selecting a given impact in their top three areas. Overall, the most frequently endorsed areas of impact generally fell within three general categories:

1. Supporting a positive self-concept (feel good about myself, with my confidence).
2. Supporting positive social interactions (to make new friends).
3. Developing new interests (find out what I like to do, discover things I want to learn more about).

These results are consistent with what the AIR evaluation team has observed in other studies in which similar data were collected from students participating in 21st CCLC programs (Naftzger & Sniegowski, 2018). Results also are aligned with how afterschool programs have been shown to support positive youth development based on the key constructs described previously.

### Exhibit 1. YMEB Respondents Indicating a Particular Program Impact

<table>
<thead>
<tr>
<th>How has this program helped you specifically?</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>To make new friends</td>
<td>43.8%</td>
</tr>
<tr>
<td>Feel good about myself</td>
<td>42.6%</td>
</tr>
<tr>
<td>With my confidence</td>
<td>32.4%</td>
</tr>
<tr>
<td>Find out what I like to do</td>
<td>28.3%</td>
</tr>
<tr>
<td>Find out what I’m good at doing</td>
<td>27.6%</td>
</tr>
<tr>
<td>Discover things I want to learn more about</td>
<td>26.5%</td>
</tr>
<tr>
<td>Think about what I might like to do when I get older</td>
<td>22.1%</td>
</tr>
<tr>
<td>Learn things that will be important for my future</td>
<td>20.2%</td>
</tr>
<tr>
<td>Find out what is important to me</td>
<td>17.6%</td>
</tr>
<tr>
<td>Think about the kinds of classes I want to take in the future</td>
<td>16.5%</td>
</tr>
<tr>
<td>Learn things that will help me in school</td>
<td>10.7%</td>
</tr>
<tr>
<td>Feel good because I was helping my community</td>
<td>9.6%</td>
</tr>
<tr>
<td>Learn about things that are important to my community</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

*Note.* YMEB surveys of 268 students collected during the 2018–19 school year in 11 CSI schools.
YMEB Survey Results: Growth on Youth Development Outcomes

One of our hypotheses associated with administration of the YMEB survey was that students that participated in CSI programming would show improvement on the three outcomes measured before and after the YMEB survey: positive mindsets, interpersonal skills, and self-esteem, as assessed during the school year. However, no substantive growth was demonstrated on any of the pre-survey or post-survey scales assessed using the YMEB. While mean scores slightly improved on the interpersonal skills scale between pre- and post-administration of the survey, both the positive mindsets and self-esteem demonstrated slight declines. However, none of the mean differences in scale scores between the fall and spring administrations of the survey were found to be statistically significant based on paired sample t-tests. Generally, performance levels were found to be remarkably stable across the 2018–19 school year in each of these areas.

However, on each of these scales we did find an association with the type of youth experiences students reported having in programming and improvement. We discuss these findings in greater detail in the following section.

Youth Experiences in Programming

The domain of youth development outcomes described in the preceding subsection are hypothesized to be the result of youth having a key set of positive experiences while participating in high-quality afterschool programming provided through CSI. Youth experiences in programming were measured using two approaches:

- YMEB Youth Experience Scales. Questions on youth experiences in programming asked on the YMEB survey focused on:
  - degree to which youth perceived a sense of agency through voice and choice,
  - perceptions of youth relationships with program activity leaders and other youth attending the 21st CCLC-funded center, and
  - extent to which youth reported having skill-building opportunities.

Collectively, as previously noted, these types of experiences have been shown to be related to youth developing a sense of agency, a positive self-concept, and senses of self-efficacy, confidence, and feelings of belonging and mattering. These all have ramifications for how youth relate to school more broadly and other learning environments outside the program (Larson & Angus, 2011; Larson & Dawes, 2015; Larson et al., 2019; Naftzger & Sniegowski, 2018).

- Youth Experience Survey. The second key survey administered by the AIR evaluation team to schools in the higher implementing sample of FY13 and FY15 CSI schools was the youth experience survey. This survey was administered at the end of each afterschool activity observed by members of the AIR evaluation team and was designed to capture snapshots of youth experiences in programming by asking questions on what youth experienced in
programming on a particular day. A total of 272 surveys were collected from students in Grades 4 to 12 in 14 schools represented in the sample. This approach was designed to obtain relatively immediate reactions from students about the 21st CCLC programming in which they had just participated. A key advantage of this approach was that youth reported on recent events and experiences, thereby enhancing the quality and authenticity of their responses because there was no need for recall. The focus here was experiences the literature has shown to be associated with student engagement, motivation, and interest in learning environments. More specifically, questions on the youth engagement survey focused on five areas of youth experience:

**Engagement.** Engagement refers to active participation, investment, and value in learning (Schmidt et al., 2020). Engagement is generally a composite variable based on a set of discrete experiences happening in the moment for participating students. Similar studies that measure in-the-moment expressions of engagement base their conceptualization of this construct on the concept of flow as articulated by Csikszentmihalyi (1990). Flow refers to the state when interest, concentration, and enjoyment occur simultaneously (Naftzger et al., 2018; Shernoff & Vandell, 2007; Shumow & Schmidt, 2014). On the youth experience survey, three items measured engagement: (a) *Were today’s activities interesting?*, (b) *Did you enjoy today’s activities?*, and (c) *Did you have to concentrate to do today’s activities?* This set of items has been used in other studies related to engagement in out-of-school-time programs (see Naftzger et al., 2018).

**Relevance.** Relevance occurs when students perceive an activity as having meaning, importance, or utility beyond the learning activity they are currently engaged in. Promoting relevance is one of the best strategies for triggering and sustaining student interest and engagement in learning environments (Assor et al., 2002). On the youth experience survey, relevance was defined by combining responses from the following three items asked on the survey: (a) *Were today’s activities important to you?*, (b) *Were today’s activities important to your future goals?*, and (c) *Could you see yourself using what you were learning in today’s activities outside this program?*

**Affect.** Emotions influence student learning in a variety of ways, including how students process, store, and retrieve information. Emotions also support student motivation to participate in a given learning task or activity based on the enjoyment and joy they receive from doing so (Ashby et al., 1999; Linnenbrink & Pintrich, 2000). On the youth experience survey, positive affect was defined by combining responses from the following two items asked on the survey: (a) *How HAPPY were you feeling in the program today?*, and (b) *How EXCITED were you feeling in the program today?* Negative affect was based on the following three survey items that were reverse coded: (a) *How BORED were you feeling in the program today?* (b) How
FRUSTRATED were you feeling in the program today?, and (c) How STRESSED were you feeling in the program today?

Challenge. Based on emergent motivation theory (Csikszentmihalyi, 1990; Csikszentmihalyi & Schneider, 2000), students are most apt to experience a state of engagement when there is a relative balance between the difficulty of a task and their ability in an area where they feel generally competent, requiring them to focus and concentrate to undertake the task in question. When this balance is achieved, students will experience an appropriate level of challenge in that activity. On the youth experience survey, challenge was measured by asking the following question: How challenging were today’s activities?

Learned Something. Students participating in afterschool programs also have the opportunity to learn new content and develop and practice new skills. Participation in high-quality afterschool programming in particular has been shown to provide students with the opportunity to develop new knowledge and skills that will help them better understand what they excel at, what they value, and what they would like to do more of or learn more about (Larson & Dawes, 2015; Shumow & Schmidt, 2014). This process has also been linked to developing interests, which is a critical component of student growth and development associated with numerous motivational elements related to learning, including goal-directed behavior, self-efficacy, self-regulation, and achievement value (Renninger & Hidi, 2011). Finally, the successes that youth have while participating in skill-building activities can support the development of a positive self-concept and enhance motivation to participate in additional learning opportunities (Larson et al., 2019). On the youth experience survey, learning something was measured by asking the following question: Do you feel like you learned something or got better at something today?

Using the program experiences scales from the YMEB and those obtained from the youth experience survey, we took steps to explore if certain types of experiences reported by youth were associated with an improvement in positive mindsets, interpersonal skills, and self-esteem measured on the YMEB, as well as the domain of student-reported benefits outlined in Exhibit 1. This is what we found:

The specific experiences students had while participating in programming were associated with the types of youth development outcomes they are likely to demonstrate. Four types of experiences were found to be especially associated with positive outcomes (Exhibit 2).¹

1. Students experiencing engagement in programming was positively associated with growth on positive mindsets and interpersonal skills.

¹ Although findings derived from the study were significant and consistent with many of our hypotheses on the relationships among youth experiences in programming and youth outcomes, some limitations of the study are important to keep in mind. The analyses summarized in this portion of the brief were descriptive and correlational. Although we found evidence of key relationships (as expected), these results should not be interpreted to imply particular experiences caused certain outcomes. Our research design does not support this level of inference, and no assumptions about causality can be made.
2. Students experiencing positive emotions and absence of negative emotions was positively associated with growth on interpersonal skills and youth reports of making new friends.

3. Students experiencing opportunities for agency and positive interactions with their peers was positively associated with growth on positive mindsets, interpersonal skills, and self-esteem.

4. Students having skill-building experiences was positively associated with growth on positive mindsets, interpersonal skills, and self-esteem, as well as youth reporting that CSI participation helped them feel better about themselves and with their confidence.

Exhibit 2. Summary of Youth Experiences Associated With Youth Development Outcomes

Experiencing Program Engagement
- Growth in positive mindsets
- Growth in interpersonal skills

Positive Emotions
- Growth in interpersonal skills
- Developing new friendships

Opportunities for Agency / Positive Peer Interactions
- Growth in positive mindsets
- Growth in Interpersonal skills
- Improved self-esteem

Skill Building Experiences
- Improved self-concept and confidence

Association With 5Essentials Student Survey Results

The evaluation team also performed a series of analyses examining how CSI schools in which YMEB and youth experiences were collected performed on a series of school-related outcomes relative to a matched set of comparison schools using a comparative interrupted time series (CITS) design.

While inclusion of all higher implementing CSI schools in the analysis \(N = 14\)^2 failed to yield any positive findings, some positive results did emerge when a subset of schools were included in the analysis based on their scores from the youth experience survey. More specifically, CSI schools were selected for inclusion in the subgroup if they had a mean youth experience survey score greater than \(3.03\) \((n = 7 \text{ schools})\). Survey responses were calculated using the following youth experience scales: Challenge, Learned Something or Got Better at Something, Engagement, Relevance, Positive Affect, and Negative Affect (reverse coded). These scores were then averaged.

\(^2\) The CSI schools included in the analysis represented a subsample of schools that had appeared to achieved a high degree of implementation of the CSI.

\(^3\) The youth experience survey used a four-point scale comprised of the following options: Not at all (1); A little (2); Somewhat (3); and Very much (4). A mean score of 3.0 or above would put the school in the Somewhat to Very Much range of the scale.
When the CITS analyses were redone to include this subset of seven schools, CSI schools with a higher mean youth experience survey score demonstrated significantly higher scores on the following scales compared with matched comparison schools:

- Peer Support for Academic Work
- Student-Teacher Trust
- Academic Engagement
- Emotional Health
- Knowledge of Human and Social Resources in the Community
- Rigorous Study Habits
- Psychological Sense of School Membership

Positive effects were sustained across most, if not all, post-intervention school years across each 5Essentials survey scale (a total of six CSI implementation years were examined). These results indicate that schools where student reported having more positive experiences in afterschool programming funded by the CSI demonstrated higher scores in terms of a series of scales represented on the 5Essentials survey. This indicates an upward trend in areas related to positive school climate, student academic learning, and social and emotional functioning.4

**Recommendations on Practices That May Promote Key Youth Experiences**

In light of the connections we found between youth experiences in programming and positive youth development and school climate-related outcomes, we thought it may be helpful to recommend some practices and approaches that may further support youth having key experiences in CSI-supported afterschool programming. We are inclined to especially elevate the findings related to students having skill-building experiences while participating in programming, which was found to be associated with a number of youth development outcomes (see Exhibit 2). A recently completed evaluation of the statewide 21st CCLC program in Rhode Island demonstrated similar findings in relation to the YMEB skill-building experiences scale (Vinson et al., 2020).

There are activities as part of afterschool programming that are especially conducive to providing these types of opportunities to participating youth, including **project-based learning**. Doing project-based learning well means providing appropriate scaffolding to students as they work on their projects and helping youth to maintain an optimistic outlook related to their projects to avoid the “sky-is-falling” type of mentality when they encounter failure or setbacks. Damon (2008) noted that it is important to point out to youth that they have some control in how things turn out and the importance of persisting

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4 It is important to note that the 5Essentials survey was examined as part of these analyses when less preintervention data were available. This is the case for schools included in the sample from the FY13 cohort, because preintervention data were available for only one year. This characteristic of the analyses, as well as small n sizes, limits the robustness of these analyses. As a consequence, these results should largely be considered as promising but exploratory.
when encountering challenges. Findings by Larson and Angus (2011) supported Damon’s advice in this regard. In a study of youth participation in arts and leadership programs, Larson and Angus (2011) found that youth developed strategic thinking skills from wrestling with the challenges associated with real-world scenarios and planning how to carry out specific tasks and work. Key to building these skills is for youth to work through challenges and get feedback on the outputs they produced. In this sense, project-based learning components that challenge youth to think through and solve problems with the appropriate amount of scaffolding and well-timed encouragement and support through challenging moments can be key to effective afterschool programs. Enhancing the capacity of CSI staff to provide project-based learning may provide them additional opportunities to create youth skill-building experiences that demonstrate youth development outcomes described in this section of the report.

Additionally, the practices described in key observation-based, quality assessment tools seem to support growth in key youth development outcomes by bolstering key youth experiences in programming (Naftzger & Sniegowski, 2018). More recently, the AIR evaluation team has developed a Program Quality Checklist that has been designed for use in CSI schools in order to help CSI staff understand how well the afterschool and summer programming they provide is characterized by supports and opportunities that facilitate positive youth development. At present, the Program Quality Checklist is being tested as part of the Learning and Re-envisioning Network (LRN) pilot. The LRN process uses the methods and tools of improvement science to develop an approach that facilitates continuous improvement with a focus on using real-time data, including data from the Program Quality Checklist, continuous assessment, and small-scale adjustments to support improvement in practice.
References


