Understanding Key Elements, Processes, and Outcomes of Expanded Learning Systems: A Review of the Literature

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Executive Summary

Every Hour Counts, formerly the Collaborative for Building After-School Systems (CBASS), commissioned this literature review as it was in the process of revising its 2008 measurement framework to reflect changes in policy, practice, and research. The purpose of this literature review is to define key elements, processes, and outcomes of expanded learning systems. This review informs the outcomes selected for inclusion in the revised framework, which consists of 8 elements and 28 outcomes, across three levels of organization: system, program, and youth (CBASS, 2012). As such, the review is organized to parallel the framework. The review aims to address the following questions at each level of the expanded learning system:

System level: What are promising practices employed by systems that may support program-level quality?

Program level: What are the best program practices that may ultimately promote positive youth outcomes?

Youth level: Which youth outcomes can programs influence and which ultimately lead to academic and life success?

The review draws primarily from the fields of positive youth development, afterschool, and outof-school time but also draws on research in health, education, early childhood, and prevention. It contains peer-reviewed research as well as promising practices, policy briefs, and research reports published by national think tanks and associations. The research team consulted reviews conducted in the field over the past several years and relied heavily on sources that have been included in meta-analyses. The review is also informed by an in-depth field scan of Every Hour Counts partners and external system-building efforts in the afterschool and expanded learning field.

Research suggests there are several key elements or processes for expanded learning at the system level. This includes improving access to programs, helping to develop infrastructure as guidance for programs, and integrating system supports for continuous improvement. The role of the intermediary is primary to successful system-building efforts.

At the program level, there is a growing body of knowledge about what constitutes program quality and emerging research exploring the relationship between program quality and youth experiences and outcomes in expanded learning settings (Durlak & Weissberg, 2007; Vandell, Reisner, & Pierce, 2007). The review highlights both management practices and program quality practices at the point of service. Management practices include processes to support the orientation, training, and development of staff; intentionality in program design; explicit connections between program design and the school day; family satisfaction with and connection to the program; explicit community outreach to inform the design and delivery of programming; and opportunities for meaningful and authentic youth input and leadership. Program quality practices include creating a positive emotional climate; supportive relationships between adults and youth; hands-on, inquiry-based learning opportunities; and activities that follow a sequence to support skill-building.

Research suggests that afterschool and expanded learning experiences can produce positive impacts on a wide range of youth outcomes. Key outcomes at the youth level can be organized into three clusters or domains: engagement, development of positive skills and beliefs, and education outcomes.

- **Engagement** includes outcomes such as high, sustained program attendance, high year-to-year program retention, and high levels of program engagement experienced by youth.
- **Positive skills and beliefs** include critical thinking, growth mindset, persistence, self-regulation, collaboration, and communication.
- **Education outcomes** include high school-day attendance, on-time grade promotion, and evidence of progress toward mastery of academic skills and content.

The measurement of youth outcomes, particularly noncognitive skills, is an emerging priority for the field. Programs and systems are interested in measuring youth skills and beliefs for a range of reasons, most of which fall into one of three categories: policy positioning, performance improvement, or proof. While interest and demand are building in the field, the literature and experience in the field point to several important challenges when it comes to measuring youth outcomes: skill development is complex and nuanced, measures are early in their development, and the set of terms used to describe such skills is not uniform.

The literature reviewed here provides the field with an opportunity to reflect on the body of knowledge to date about important elements, processes, and outcomes for expanded learning systems. Further, the review will help the field move toward a common language of the key outcomes of successful expanded learning systems.

Introduction

Every Hour Counts, formerly the Collaborative for Building After-School Systems (CBASS), commissioned this literature review as it is in the process of revising its 2008 measurement framework to reflect changes in policy, practice, and research. The purpose of this literature review is to define key elements, processes, and outcomes of afterschool and expanded learning systems. The revised Every Hour Counts Measurement Framework consists of 8 elements and 28 outcomes, across three levels of organization: system, program, and youth (CBASS, 2012). The review is organized by those tiers, starting with the system level and continuing through the program and youth levels. The review aims to address the following questions at each level of the expanded learning system:

System level: What are promising practices employed by systems that may support program-level quality?

Program level: What are the best program practices that may ultimately promote positive youth outcomes?

Youth level: Which youth outcomes can programs influence and which ultimately lead to academic and life success?

The literature review draws primarily from the fields of positive youth development, afterschool, and out-of-school time, but it also draws on research in health, education, early childhood, and prevention. It contains peer-reviewed research as well as promising practices, policy briefs, and research reports published by national think tanks and associations. The research team consulted other reviews conducted over the past several years and relied heavily on sources that have been included in meta-analyses. Throughout the review, the term *expanded learning* is used to encompass the findings from the literature and to reflect the movement within Every Hour Counts and the field toward this common terminology (Stonehill et al., 2011). Although the term *expanded learning* refers broadly to out-of-school time efforts that include afterschool and summers as well as an expanded learning day, the specific programs (e.g., afterschool, summer, and/or expanded learning) are referenced specifically when citing the literature. The research team narrowed the literature, in part, by conducting an in-depth field scan of Every Hour Counts partners¹ and external system-building efforts² in the afterschool and expanded learning field³, especially in reviewing youth-level outcomes that had the potential to be extensive. The research team aligned the findings from the literature review and field scan with a framework informed by

¹ The following Every Hour Counts partners participated in the field scan: After School Matters, Chicago (Jill Young); Baltimore's Safe and Sound Campaign (Ellie Mitchell); Boston After School & Beyond (Chris Smith); Hartford Partnership for School Success (Sandra Ward); Nashville After Zone Alliance (Candy Markman, Laura Hansen); Partnership for Children & Youth, Bay Area (Katie Brackenridge); Partnership for Youth Development, New Orleans (Lauren Bierbaum); Providence After School Alliance (Hillary Salmons, Jessie Kerr-Vanderslice); Prime Time Palm Beach County, Inc. (Suzette Harvey); The After-School Corporation, New York (Lucy Friedman, Katie Brohawn); The After-School Institute, Baltimore (Rob Clark); and Youthprise, Twin Cities, Minnesota (Wokie Weah).

² The following external organizations participated in the field scan: 4-H; Austin Independent School District (a collaborating CASEL district); Boys and Girls Club of America; Collaborative for Academic, Social, and Emotional Learning (CASEL); Ready by 21 in Austin, Texas; United Way of Greater Cincinnati; Youth Development Executives of King County (YDEKC); and YMCA of the USA.

³ The Every Hour Counts field scan utilized two primary methods: survey and interviews. In February 2013, an online survey of partners generated a snapshot of data efforts across the Every Hour Counts network; these findings also informed the development of in-depth partner interviews that followed. During March–April 2013, executive directors and/or lead evaluation staff from 11 Every Hour Counts partners participated in semistructured phone interviews that focused on partner activity and capacity related to data collection and data use, as well as measurement activity and aspirations at the system, program, and youth levels. To ensure the process was informed by experts outside of the Every Hour Counts network, during May 2013, interviews were conducted with leaders from eight external national organizations or local systems with relevant expertise, using a shortened version of the Every Hour Counts partner interviews.

publications from the National Research Council (Pellegrino & Hilton, 2012), the University of Chicago Consortium on Chicago School Research (Farrington et al., 2012), and the U.S. Department of Education, Office of Educational Technology (Shechtman et al., 2013) to focus on youth outcomes that underpin positive development, academic success, and life success (see Appendixes A and B for additional information). The review does not attempt to draw inferences between the bodies of knowledge that make up this review as would be done in a meta-analysis; rather, it presents the literature at each level in order to demonstrate opportunities for practice, measurement, and further inquiry. With shrinking budgets and increased accountability, it is a critical time for afterschool and expanded learning systems to identify and invest in the features and processes of programs that promote positive youth outcomes. The learning from the positive youth development, afterschool, out-of-school time, and expanded learning fields tells a compelling story of how ongoing investments may support system building, program quality, and ultimately youth outcomes.

System-Level Elements of Expanded Learning Systems

What are promising practices employed by systems that may support program-level quality?

While there is promising research outlining the important building blocks of a strong, coordinated system; there is scant literature connecting system-building efforts to program quality and youth outcomes. This section details the elements that constitute high-functioning systems. Having a shared vision across stakeholders and buy-in from key leaders led by a strong intermediary organization are key elements of successful expanded learning systems (Bodilly et al., 2010). The process of getting to a shared vision may be time consuming and complicated, but it is critical to systems-building efforts. Additional factors that influence the success of promising systems include sound leadership, with active participation of public officials; diverse funding sources; effective coordination; and having a sound data management strategy (Bodilly et al., 2010; Wallace Foundation, 2012; Yohalem, Devaney, Smith, & Wilson-Ahlstrom, 2012). Key system-level elements can be organized into three categories: access, infrastructure, and system supports for a continuous improvement process. The sections that follow describe the literature that supports these key elements.

Access

Barriers to program access vary across locales and within cities. Creating avenues for families and youth to access programs is a priority for expanded learning systems builders (CBASS, 2012). Opportunities for youth to access high-quality programs open the door to equitable and diverse expanded learning opportunities (Blyth & LaCrois-Dalluhn, 2011). Exemplary systems continue to improve access while struggling to maintain adequate funding in a fiscally constrained climate. To counteract these constraints, systems have begun to rely on mechanisms such as market analyses, geographic information-mapping systems, and needs and resource assessments that connect youth, their families, and the community with a network of service providers and public resources to improve access (Bodilly et al., 2010; Russell & Little, 2011).

Many city systems have utilized surveys and public opinion polls to better understand what attracts youth and their parents or caregivers to attend an afterschool program and what the

community's needs are. Other cities have conducted mapping exercises to understand where programs currently exist and where programs are still needed. These types of activities can demonstrate whether and how youth are accessing programs and also illustrate what funding streams support what programs and where more and diverse funding is needed (Bodilly et al., 2010).

Infrastructure

Intermediary system builders have taken a leading role in building infrastructure at scale that would otherwise not be feasible for individual programs to attain. This allows systems and organizations to assess how the system is functioning and support planning efforts to enhance utility. Core infrastructure elements described here include the adoption and use of data/data systems for improvement; diverse and sustainable funding support; and the existence of a coordinating entity, public and private partners, and a shared vision among partners.

Adoption of Data/Data Systems for Improvement. Expanded learning system builders are working to build the capacity of their staff and partners to collect and use data effectively. In most cases, they are collecting and managing data through the development and deployment of management information systems (Kingsley, 2012). A recent publication by the National League of Cities describes management information systems this way: "An afterschool management information system is made up of a network of professionals who purposefully create, analyze and use information to improve youth development programs, and a stack of technologies that facilitate the work of these professionals" (Kingsley, 2012, p. 4). With access to quality data, systems can assess outcomes at a variety of levels and for a variety of purposes (Reisner, 2004). Effective management information systems include the following elements:

- Common technology guided by a common vision
- Training and technical assistance supports for use
- Shared data definitions, measures, and outcomes
- Clear business requirements and information-sharing agreements

Expanded learning system builders collect and use data at multiple levels (i.e., system, program, and youth) to improve the quality and extent of program offerings, to facilitate contract management with providers, to coordinate people and services, to make funding decisions, and to advocate for additional program support (McCombs et al., 2010). Having both a management information system and high-quality data is critical. Although some system builders have opted for alternate approaches (e.g., relying on external evaluations) to collect and report data to address the same goals, having a system in place—whether internal or external—to process the data and make effective use of it is key.

Sustainable and Diverse Financial Support. Intermediary systems builders can play a significant role in generating strategies to inform funding decisions, advocating for funding, and, in some cases, acting as a funding intermediary for afterschool and expanded learning programs. Sustainable financial support enables the development of systemwide strategies to facilitate the long-term viability of programming. Key to an effective intermediary role is to sustain a diverse (i.e., public and private) funding base with buy-in from key local constituencies (CBASS, 2012).

Dedicated funding can improve the implementation and operation of afterschool programs and allow policymakers to propose broader, data-driven improvement and accountability efforts (Halpern, Deich, & Cohen, 2000).

Existence of a Coordinating Entity to Promote Collaboration and Shared Vision.

Collaboration among lead partners is critical in building effective expanded learning systems (Bodilly et al., 2010; Yohalem at al., 2012), and intermediary organizations or lead agencies play a key role in facilitating that collaboration (CBASS, 2012). Elements of effective collaboration include: having clear and defined roles among partners based on a shared vision, having memoranda of understanding in place that outline agreed-upon roles, and having shared data management strategies. Additional structural features that improve collaboration include availability of designated resources; stable leadership, especially with participation from municipal agencies; and having a structure that supports cross-departmental committees and cooperation (Bodilly et al., 2010). Finally, many expanded learning systems involve strong and ongoing collaboration with district and school partners (Mathematica Policy Research, 2012). A discussion of program-level collaboration with schools, families, and the community is detailed in the Program-Level Processes section of this review.

System Supports for a Continuous Improvement Process

In the past decade, quality improvement systems have emerged in the expanded learning field because of the core value that intermediaries and systems builders have placed on building and supporting a culture of continuous improvement. Systemic supports for quality include adopting standards and standards-aligned assessment tools, managing a continuous improvement process, and providing coordinated training and technical assistance (Yohalem et al., 2012).

Adoption of Standards and Aligned Assessment Tools. Adopting quality standards or a quality framework is a way for systems to arrive at a shared vision of program quality across diverse programs. The National Afterschool Association has developed a set of afterschool standards, and more than half of the states, as well as a variety of locales, have developed or started to develop statewide standards (National Network of Statewide Afterschool Networks, 2013). In addition, there are quality frameworks or associated standards linked to core competencies for staff. The core knowledge and competencies specify the knowledge base and set of skills for youth development professionals that enhance their expertise and allow them to gain a higher level of recognition (National Afterschool Association, 2011).

The adoption of shared standards or a quality framework allows systems to adopt common language, create opportunities for shared measurement, uniformly communicate their mission, and develop a collective advocacy agenda (Dusenbury, Zadrazil, Mart, & Weissberg, 2011; National Network of Statewide Afterschool Networks, 2013; Yohalem et al., 2012). Where there are shared standards or frameworks, standards-aligned assessment tools can be useful in providing a way for programs to regularly take stock of themselves against those standards, develop plans to improve based on what they learned, carry out those plans, and begin the cycle over again through a continuous improvement process (Yohalem et al., 2012).

Delivery and Management of a Continuous Improvement Process. In order to be successful, a continuous improvement process should be data driven, transparent, and have collective

accountability among constituents (Hayes, Lind, & Baldwin, 2012). Effective continuous improvement models include the following elements:

- Objective data that describe specific behaviors or conditions in real time
- Professional learning communities to conduct self-assessment, plan with data, and develop expertise at implementing improvements
- Coaching models/quality advisors to provide sustained and local program improvement support
- Self-assessment and performance feedback
- Dedicated funding (American Institutes for Research, 2012; Hattie & Timperley, 2007; Kauh, 2011; Kotloff & Korom-Djakovic, 2010; Smith, Akiva, et al., 2012; Tout, Isner, & Zaslow, 2011)

Systems that employ a continuous improvement process typically use data management systems to produce and report reliable data on key program quality elements. This enables them to measure the scope and impact of programs across communities and to determine technical assistance needs and other supports for programs (Russell & Little, 2011).

Provision of and Participation in Coordinated Training and Technical Assistance. Most expanded learning systems offer training, technical assistance, and evaluation in support of continuous improvement processes (Reisner, 2004). Core elements of systemic training and technical assistance efforts include the following:

- Trainings that are based on shared standards/frameworks and competencies
- Trainings that vary by role and are based on the needs and interests of participants
- A leadership and advisory structure staffed by key intermediary leaders and staff from the field
- Utilization of the resources and assets of local experts and staff in planning and executing training
- Adequate planning time and resources to support the implementation of new practices after a training, and compensation for staff time spent in training and technical assistance
- Where possible, partnerships with credentialing entities and institutions of higher education to provide credits for training (Costley, 1998; Guskey, 2000; National Institute on Out-of-School Time & Academy for Educational Development Center for Youth Development and Policy Research, 2003)

Ongoing training and technical assistance are important because of their potential to strengthen the afterschool workforce (Bouffard & Little, 2004). The next section discusses professional development at the program level as one element in a set of interrelated elements of effective expanded learning systems.

Program-Level Processes in Expanded Learning Systems

What are the best program practices that may ultimately promote positive youth outcomes?

There is a growing body of knowledge about what constitutes program quality in the field of afterschool and expanded learning. Furthermore, emerging research exploring the relationship between elements of program quality and youth outcomes in expanded learning settings suggests that regular participation in high-quality programming is linked to significant positive youth outcomes (Durlak, Weissberg & Pachan, 2010; Vandell et al., 2007). The sections that follow describe a set of management practices that support overall program implementation and then a more specific set of elements that research suggests constitute quality practice at the direct programmatic setting where youth and adults interact.

Management Practices

Afterschool and expanded learning programs require sound management practices to support staff in delivering high-quality programs (Weiss & Little, 2008). Findings from the literature suggest three broad management practice areas: support for staff; program design; and partnerships with families, schools, and the community. The following sections detail the specific features, processes, and outcomes involved.

Processes to Support the Orientation, Training, and Development of Staff. The presence of a skilled and stable workforce in afterschool programs plays a significant role in quality, continuity, and consequently, how youth experience afterschool programs (Fashola, 2002; Huang & Dieteil, 2011; National Institute on Out-of-School Time, 2003). Effective professional development requires skilled trainers with expertise in best practices (Mott Foundation, 2009). Other aspects of high-quality professional development include the following:

- Involving program staff in identifying professional development topics and facilitators
- Linking research to practice using practical examples
- Using local resources/experts from the community as facilitators
- Providing opportunities that are relevant for staff in different roles and that meet their specific needs
- Offering opportunities for practice and reflection (Costley, 1998)

Expanded learning staff also should have opportunities to progress in their careers along multiple career paths. The emergence of systems and continuous improvement processes in expanded learning has already helped to diversify pathways for professionals as managers, coaches, trainers, quality observers, and data specialists, among other jobs. The extent to which staff are being prepared and supported to adopt processes related to program quality and continuous program improvement is instrumental in assessing the viability of the continuous improvement process adopted by the system; it also identifies potential opportunities for further development and refinement. Subsequently, staff development and training impacts youth-level participation

and engagement in programming. We discuss youth engagement as a critical youth outcome in the Youth-Level Outcomes section of this review.

Intentionality in Program Design. Intentionality—that is, aligning expected program outcomes with the specific activities in which youth will be participating—enhances the likelihood that the desired outcomes will be achieved. In the afterschool and expanded learning field, intentional program design involves three related but distinguishable practice sets:

- Setting clear expectations and goals for youth
- A developmentally appropriate instructional approach
- Effective scaffolding/sequencing of content and skills practice

Programs with clear expectations and goals provide guidance for youth on acceptable norms for behavior and participation (Wang, Haertel, & Walberg, 1993). Ideally, program staff should include youth in the process of developing these norms and in identifying specific skill development goals (Kirshner, 2003). Walker and colleagues emphasize the importance of staff understanding developmental milestones, engaging youth through the active co-creation of program activities, and ensuring the relevance of program content to youth's lives (Walker, Marczak, Blyth, & Borden, 2005). Finally, programs should facilitate skill development by giving youth opportunities to practice specific skills with frequent modeling by adults and more experienced peers (Salas & Cannon-Bowers, 2001; Siegler & Alibali, 2005). In a meta-analysis of afterschool impact studies, researchers found that program impacts were moderated by the presence of four characteristics: sequenced content, skills practice, active learning approaches, and focused and explicit expectations and goals (Durlak & Weisberg, 2007). Youth participating in programs with these characteristics were more likely to have positive outcomes than peers who participated in programs without those characteristics. In later sections on program quality practices, this review details specific program-level practices that help implement this structure with youth.

Explicit Connections Between Program Design and the School Day. Sharing information with schools, families, and the community is also critical to program planning. Expanded learning initiatives have a unique opportunity to partner with schools to develop shared goals for afterschool programs (Forum for Youth Investment, 2012). Several promising aspects of school alignment appear in the literature and can be grouped into two sets of related practices. The first set is best described as operational supports from schools. Operational support practices are defined by Little (2006) as shared space, shared staff, and good communication with supportive school leadership. The second set of promising practices involves communication between school and program staff aimed at building explicit connections between the expanded learning program design and the school day. The U.S. Department of Education recommends that school day and expanded learning leadership collaborate to do the following:

- Hire program staff.
- Identify opportunities and needs within the school for programming.
- Co-convene professional development for staff based upon program priorities.
- Identify and perpetuate the school goals and culture after school.

- Develop an academic liaison role and manage three-way relationships between families, schools, and afterschool programs.
- Assess shared data on student performance and attendance to drive activities and evaluate the program at large (Beckett, Borman, Capizzano, Parsley, Ross, Schrim, & Taylor, 2009).

Many leaders in the expanded learning field suggest that the unique advantage of afterschool programs lies in the fact that they are not necessarily structured like the school day, noting that programs have greater flexibility when it comes to staffing, content, field trips, small groups, and instructional approaches (Afterschool Alliance, 2011; Halpern, 2003; Beckett et al., 2009). Extensive evidence suggests that program participation may have effects on school success outcomes (Durlak et al., 2010; Lauer et al., 2006; Naftzger et al., 2011; Naftzger et al., 2013; Pierce, Bolt, & Vandell, 2010). There is also some evidence that suggests that alignment produces improvements in school success outcomes (Farmer-Hinton, Sass, & Schroeder, 2009).

Family Satisfaction With and Connection to the Program. Expanded learning programs have historically been in a strong position to engage families. Intentional family engagement strategies have the potential to support both a young person's afterschool and school experiences, especially in the case of programs that aspire to align with school day content (Bouffard, Little, & Weiss, 2006). Sharing information with parents or guardians about student progress, experiences, and school assignments and cooperating with families in using that information can foster partnerships that are centered around a participant's learning needs (Harris, Rosenberg, & Wallace, 2012; Little, 2012). Epstein (1987) provides a widely used family engagement framework for school involvement that is applicable to expanded learning programs: (1) parent knowledge of child development, (2) exchanges about children's progress, (3) parent volunteerism, (4) families helping students with homework, (5) parents in organizational governance roles, and (6) identifying and integrating resources and services in the community to strengthen school programs.

Family engagement practice may differ by developmental stage of participants; some of the practices included in the Epstein model are most applicable for younger students. When it comes to adolescents, academic socialization is an emerging model, focused on "communicating parental expectations for education and its value or utility, linking schoolwork to current events, fostering educational and occupational aspirations, discussing learning strategies with children, and making plans and preparations for the future" (Hill & Tyson, 2009, p. 758). Family engagement strategies should vary by the age and stage of students and the context of the program, recognize culture and language diversity, and take into account the neighborhood or community assets and opportunities (Deschenes et al., 2010).

Explicit Community Outreach to Inform the Design and Delivery of Programming.

Community engagement in expanded learning programs is a broad but important concept. It

allows systems to better understand how to support the collaboration between programs and other service providers in the community. It also ensures a more comprehensive service delivery system that is aligned with the needs of participating youth, their families, and the community.

In discussing opportunities for engagement, a Harvard Family Research Project publication defines *community* as including "neighborhoods—both their organizations and individual

members; youth related services and agencies (e.g., the Department of Social Services, community health clinics, etc.); businesses; and cultural institutions such as museums, libraries and arts centers" (Bouffard et al., 2006, p. 4). Community engagement practices mentioned prominently in the afterschool literature include the following:

- Direct delivery of program activities at afterschool sites
- Expert instruction and apprenticeship in content areas such as science, technology, engineering, and mathematics (STEM)
- Direct financial supports
- Program activities at cultural institutions
- Access to neighborhood institutions and families for youth recruitment and community service projects and service-learning projects
- Youth program governance responsibilities that involve community outreach (Halpern, 2006; Lauver, Little & Weiss, 2004; Smith & Van Egeren, 2008; Smith, Akiva, et al., 2012; Zelding, Petrakubi, & Macneil, 2008).

As with other engagement efforts, the goals set forth by the program should drive community engagement. Ideally, there are opportunities for programs to employ the assets and resources of the community, opportunities for community members to provide program guidance (e.g., via advisory boards), and opportunities for program participants and staff to give back to the community in a variety of ways; this is especially true for programs serving older youth. For example, research suggests that opportunities for youth to engage in service-learning activities that are meaningful, intentional, and valued not only enable youth to develop positive skills and beliefs youth's such as a sense of self-efficacy, social problem-solving, communication and collaboration skills but such opportunities also provide a much-needed service to the community (Billig, Root, & Jesse, 2005; Naughton, 2000; Scales, Blyth, Berkas, Kielsmeier, 2000).

Opportunities for Meaningful and Authentic Youth Input and Leadership. Leadership is the ability to intentionally and effectively influence others. Unique in that it is both a process and an outcome, leadership development can be achieved through a variety of scaffolded experiences in high-quality, intentional learning environments. In the field of expanded learning, opportunities for youth leadership and autonomy supported by adults have been linked to the promotion of a variety of positive gains, including high program retention, academic success, and motivation.

Research has identified opportunities for youth leadership as one of five characteristics of high retention programs (Deschenes et al., 2010). Older youth respond well to opportunities for leadership such as youth councils, decision-making teams, community-service activities, or "staff" positions as these opportunities give youth the ability to intentionally and effectively influence others. A recent evaluation of the New York City Department of Youth and Community Development found that programs serving middle and high school youth had higher rates of retention when youth had more opportunities to participate in leadership activities; program participants also reported higher levels of belonging within the program and more engagement in prosocial behaviors (Russell, Mielke, & Reisner, 2009).

Scholars also agree that young people benefit when their teachers, families, and youth workers support their autonomy and allow them to exercise leadership. Studies have found that teacher autonomy support in the classroom improves student engagement (Assor, Kaplan, & Roth, 2002; Reeve, Jang, Carrell, Jeon, & Barch, 2004) and connection to school (Eccles & Gootman, 2002). It has also been positively associated with grade point averages (Soenens & Vansteenkiste, 2005), intrinsic motivation (Reeve & Jang, 2006), academic competence (Roeser, Eccles, & Sameroff, 1998; Soenens & Vansteenkiste, 2005), academic values (Roeser et al., 1998), perceptions of self-determination (Soenens & Vansteenkiste, 2005), positive feelings about schoolwork (Assor et al., 2002), and independent task completion (Reeve, Bolt, & Cai, 1999). Support for autonomy also has been found to protect young people from academic alienation, depression, and problem behavior (Eccles et al., 1997). In afterschool programs, autonomy support has been positively associated with intrinsic motivation and persistence (Pelletier, Fortier, Vallerand, & Briere, 2001), and youth voice has been associated with improvements in young people's strategic thinking (Larson & Hansen, 2005).

Sound managerial practices (i.e., professional development and training for staff; intentional program design; engaging with schools, families, and the community; and opportunities for youth input and leadership) provide a foundation for implementing high-quality afterschool activities with youth. Although there is some overlap between the management practices identified in this section and program quality practices identified in the sections that follow, these program quality practices focus specifically on the direct interaction between youth and adults and youth experience during programming.

Program Quality Practices

Multiple related staff practices constitute quality practice in expanded learning programs (Smith, Peck, Denault, Blazevski, & Akiva, 2010). Fortunately, there is wide consensus on which practices support youth development and learning in afterschool programs (Yohalem, Wilson-Ahlstrom, Fischer, & Shinn, 2009). Consensus practices include the following:

- Positive climate and supportive relationships
- Active, hands-on, inquiry-based learning opportunities
- Sequencing of activities to promote skill-building

The sections that follow provide examples and describe supporting research for each of these practice sets.

Climate and Supportive Relationships. The "climate" of expanded learning programs can be defined broadly as the overall feeling and ambience that both staff and youth experience. Climate is generally characterized by the policies and structure of the program and more specifically by the opportunities for interaction provided by the staff. Key elements of this practice set include opportunities for the following:

- Supportive relationships with adults built through both high expectations and high responsiveness
- Belonging with positive peer groups

• Learning both from and with peers

Many studies explain why and how positive climate supports youth learning and development: Sense of belonging in a program setting has been linked with academic motivation and achievement (Faircloth & Hamm, 2005), and effective adult-youth relationships have been associated with positive feelings on the part of youth as well as fewer discipline problems in school (Marzano & Marzano, 2003). Furthermore, when youth have opportunities to experience success in a collaborative setting with peers, their sense of social competence can increase and they are ready to learn (Hromek & Roffey, 2009).

Active, Hands-On, Inquiry-Based Learning. As introduced in the Management Practices section, the intentional application of strong content and strong adult support for skill development is an important aspect of program quality. The following are key elements of this practice set:

- Recognition and promotion of the experiential learning cycle
- Support for self-regulated learning
- Applied activities that help participants relate learning to their lives
- Guided learning from adults

From the classic theories of Piaget to more recent assessments of best practices, there is a strong body of research about active learning. Kolb (1984) lays out a clear cycle of experiential learning that includes concrete experience, reflective observation, abstract conceptualization, and active experimentation; Pintrich and DeGroot (1990) identify strong links between self-regulatory processes and academic achievement. Finally, although active learning promotes a certain degree of independence for the learner, it is not intended to be "pure discovery" with minimal adult interaction. Rather, in effective active learning experiences, adults support youth in making connections, creating a dynamic referred to as "guided discovery," which has been shown to support learning (Mayer, 2004).

Sequencing of Activities to Support Skill Building. The intentional sequencing of activities across multiple sessions—sometimes referred to as scaffolding—involves adults structuring learning opportunities in order to meet youth at their level, that is, where they are in terms of readiness and interest. Key elements of this practice set include the following:

- Asking effective questions and providing opportunities for youth input
- Targeting the "zone of proximal development" for content and skills modeling/practice during activity planning
- Providing continuous guidance and feedback during activities

As youth problem-solve and engage with materials and ideas, well-placed, higher-order questions, guidance, and feedback can have a dramatic effect on their learning experience (Hattie, 2009; Hattie & Timperley, 2007; Kirschner, Sweller, & Clark, 2006). In order for youth to be continually challenged, activities and tasks need to fall into what Vygotsky (1978) referred to as their zone of proximal development. Stated simply, "what the child is able to do in collaboration today he will be able to do independently tomorrow" (Vygotsky, 1987, p. 211). As

youth build skills across multiple sessions of a program, it is essential to provide some degree of choice to ensure activities align with their readiness and competencies, but also with their interests and sense of enjoyment (Reeve, 2006).

Structured learning environments where staff implement the practices described have demonstrated positive effects on child and youth development (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Durlak & Weissberg, 2007; Eccles & Gootman, 2002; Greenberg et al., 2003; Lerner & Lerner, 2011; Li & Julian, 2012; Pianta, La Paro, & Hamre, 2006). The following section discusses specific outcomes that youth may experience from participating in high-quality afterschool and expanded learning programs.

Youth-Level Outcomes of Expanded Learning Systems

What youth outcomes can programs influence and that ultimately lead to academic and life success?

Youth experiences in expanded learning programs can produce positive impacts on a wide range of outcomes, including engagement, the development of positive skills and beliefs, and academic success. Meta-analytic findings (e.g., Durlak & Weissberg, 2007) demonstrate that programs can and do have positive effects, particularly when they offer high-quality, skill-focused experiences over multiple sessions. Studies of fundamentally similar settings such as school-based extracurricular activities, anti-recidivism programs, and school-based prevention programs offer important parallel findings and also demonstrate a wide range of positive effects for at-risk populations who are exposed to positive youth development experiences. The following are examples:

- Participation in extracurricular activities has substantial life course effects for high-risk adolescents, particularly college entry.
- Programs that reduce youth recidivism are skills-focused and group-based.
- School-based prevention and social and emotional learning interventions show that youth can be taught personal and social skills, including self-awareness, self-management, and responsible decision making. (Durlak, Dymnicki, Taylor, Weissberg, & Schellinger, 2011; Feldman & Matjasko, 2005; Greenberg et al., 2003; Lipsey, Howell, Kelly, Chapman, & Carver, 2010; Peck, Roeser, Zarrett, & Eccles, 2008)

Additional findings show that programs demonstrating quality practices and structures can help youth do better in school, particularly when they include activities focused on specific academic goals or other school-relevant skills and behaviors.

Prioritizing Youth Outcomes

A recent field scan suggests that Every Hour Counts partners and other experts in the expanded learning field have a strong and increasing interest in measuring the development of youth skills and beliefs⁴ that directly or indirectly contribute to school success. The research team gathered

⁴ The development of youth skills and beliefs refers to the fostering skills and beliefs that underpin success in school, life, and work. These 21st century or "soft" skills span thinking and processing skills (e.g., creativity and cognition); interpersonal skills

information from Every Hour Counts partners about measures of skill development they currently employ as well as their aspirations for impact on and measurement of specific skills and then classified those measures and outcomes against a framework informed by recent publications from the National Research Council (Pellegrino & Hilton, 2012), the University of Chicago Consortium on Chicago School Research (Farrington et al., 2012), and the U.S. Department of Education, Office of Educational Technology (Shechtman et al., 2013) to focus on outcomes that underpin positive development and academic and life success (see Appendixes A and B for additional information). The team then integrated what can be gleaned from the emerging research base on youth skills and beliefs with Every Hour Counts partner priorities and aspirations to develop a consensus set of youth outcome domains for the revised measurement framework.

Key youth-level outcomes of afterschool and expanded learning systems can be organized into three clusters or domains: (1) engagement, (2) development of positive skills and beliefs, and (3) education outcomes. Engagement includes outcomes such as high, sustained program attendance, high year-to-year program retention, and high levels of program engagement experienced by youth. Positive skills and beliefs include critical thinking, growth mindset, persistence, self-regulation, teamwork/collaboration, and communication. Education outcomes include high school-day attendance, on-time grade promotion, and evidence of progress toward mastery of academic skills and content. The following sections draw on available research to describe these clusters and specific outcomes within each in greater detail.

Engagement

Put simply, engagement in afterschool is the interaction between the individual youth and the program setting; engagement comprises activities and interactions with staff and peers. In afterschool and expanded learning, engagement is often seen as the precursor to meaningful outcomes for youth. A simple measure of engagement is youth's regular attendance; presuming young people will not voluntarily attend a program they do not enjoy, attendance suggests the youth find the program engaging. Beyond attendance, motivation and interest in activities is another signal that youth are engaged in the program. Research on these two dimensions of engagement is explored below. Although engagement can be considered either a program-level or youth-level outcome of an effective system, it is included here because engagement is most directly observed and measured at the youth level.

High, Sustained Program Attendance and Year-to-Year Program Retention. In the past decade, significant attention has been given to the effect that different levels and types of afterschool program participation have on youth outcomes (Goerge, Cusick, Wasserman, & Gladden, 2007; Weiss, Little, & Bouffard, 2005). Research suggests that consistent participation over time is necessary in order for individuals to reap the benefits of afterschool programs (Fredricks & Eccles, 2006). In addition to regular program attendance, research suggests that annual retention in quality afterschool settings is another critical factor in terms of consistent participation (Fredricks & Eccles, 2006). Many reviews of research (e.g., American Youth

(e.g., teamwork); intrapersonal skills (e.g., self-regulation); and mindsets, orientations, and beliefs (e.g., a future orientation or a growth mindset). They are applicable to a variety of settings and situations, and as mastery builds, these skills can be transferred from the setting in which they were learned to application in other settings. In this way, focusing on skill development in afterschool programs can lead to school success in the short term and, in the long term, attainment of a wide range of life goals.

Policy Forum, Child Trends, Harvard Family Research Project) reveal greater impact when youth participate with greater frequency, both in terms of attendance (days per week) and in terms of program retention across years.

Evaluations of programs such as Chicago's After School Matters or LA's BEST substantiate these findings. Not only did positive gains in academic performance decrease when youth did not attend the program (Goerge et al., 2007), but greater retention (more than three years) was correlated with positive academic performance on standardized tests (Huang et al., 2007). In addition to academic performance, an evaluation of afterschool programs sponsored by the Department of Youth and Community Development in New York City reveals that high retention also impacted youth's sense of belonging, interactions, relationships, and self-esteem (Russell et al., 2006). Research suggests that it is increasingly challenging to maintain high levels of attendance and retention with older youth, who not only have more independence in asserting how they spend their time but also have increasing demands on their schedule after school (Afterschool Alliance, 2009). Given this challenge and the benefits of high attendance and retention, maintaining attendance becomes a priority for programs serving older youth (Deschenes et al., 2010).

High Levels of Program Engagement, Motivation, and Interest. A substantial amount of literature in developmental science suggests that individuals who become interested in and motivated by the activities of a setting increase their learning and development (Csikszentmihalyi & Larson, 1984; Gottfried, Fleming, & Gottfried, 2001; Guay, Boggiano, & Vallerand, 2001; Pearce & Larson, 2010; Shernoff & Vandell, 2010). Research on motivation suggests that engagement during learning experiences is increased when environments address basic needs for physical safety, emotional support, competence, and autonomy (Deci & Ryan, 1985). More specifically, engaging instructional practices that combine positive affect, concentration, moderately difficult effort, adult modeling, and coparticipation in the learning task can promote skill development and skill integration in multiple domains (Fischer & Bidell, 2006; Shernoff & Vandell, 2007; Vygotsky, 1978).

Development of Positive Skills and Beliefs

More than a decade of research and evaluation confirms that youth who participate in high-quality programs show positive gains in a multitude of interrelated areas that include but are not limited to the development of positive skills and beliefs such as thinking and processing skills, and intrapersonal and interpersonal skills. The next sections review the research on specific outcomes in this area that reflect Every Hour Counts priorities as well as a growing research base (see Appendix A for full description of process and findings).

Growth Mindset. Youth who demonstrate a growth mindset display a belief that their basic qualities (e.g., intelligence, skills, abilities) can be developed and improved upon through continued learning, practice, and effort (Dweck, 2006). Research by Dweck and colleagues (e.g., Dweck & Legett, 1988; Cury, Elliot, Da Fonseca, & Moller, 2006) suggests that student beliefs about their own learning can impact their performance. In recent studies of an intervention designed around the "growth mindset" concept, students were exposed to brain research that demonstrates brains grow and change as a result of hard work on difficult tasks. When compared with students in the control group (who were exposed to a variety of "study skills"), students in

the experimental group received higher grades in mathematics (Blackwell, Trzesniewski, & Dweck, 2007; replicated in Yaeger & Walton, 2011). Recently, Dweck, Walton, and Cohen (2011) suggested that programming that targets the development of "academic tenacity" can improve youth academic achievement over time.

Persistence. An important skill set for success in school as well as the workplace is the ability to consistently and thoroughly perform required or important tasks and to demonstrate initiative in spite of obstacles or distractions. Preliminary research on the Boston Summer Learning Project suggests that youth made significant gains in a variety of skills, including initiative as well as communication, engagement in learning, and relationships, according to teacher observations (Boston After School and Beyond, 2012). Research by Vandell and colleagues (2007) revealed an increase in participants' work habits and task persistence. The authors posit that this increase likely had an impact on another significant positive finding: gains in math achievement (Vandell et al., 2006; Vandell et al., 2007).

Similarly, research by Duckworth and Seligman (2005) suggests that exercising self-discipline is related to a number of positive outcomes, including increased school attendance, hours spent on homework, school grades, and standardized achievement test scores. In an examination of individual "perseverance and passion for long-term goals"—otherwise known as "grit"—six studies revealed that individuals higher in persistence and follow-through had attained higher levels of education, earned higher undergraduate GPAs, and made fewer career changes (Duckworth, Peterson, Matthews, & Kelly, 2007). Grit, tenacity, and perseverance are concepts that youth can develop psychological resources to support, including their academic mindsets, effortful control, strategies, and tactics (Shechtman et al., 2013).

Self-Regulation. Self-regulation is the ability to use internal (mental-emotional) processes to direct and manage one's emotions and behavior. Many skills such as beliefs about learning, cognitive strategies, work ethic, and persistence are behavioral manifestations of cognitive self-regulation, which play a critical role in other areas such as academic performance. In a recent study of the AfterZones in Providence, Rhode Island, the level of youth emotional engagement was related to a positive change in a variety of skills and beliefs including emotional regulation as well as improved social behaviors and future outlook (Kauh, 2011). In related fields such as early childhood, much research has been conducted in this area, revealing a link between self-regulation during early childhood and academic and social aptitude in later life (Shoda, Mischel, & Peake, 1990). Research on the use of self-regulation strategies in education emphasizes the importance of explicitly teaching strategies (e.g., forethought, monitoring, and self-reflection) to learners (Zimmerman, 2002). Studies of self-regulation conducted on both reading and math instruction have been shown to improve academics in elementary-aged children (Fuchs et al., 2003; Mason, 2004).

Critical Thinking. The ability to solve problems and answer questions that have more than one solution is often referred to as critical thinking. Although it is less common in the extant literature to explore the development of critical thinking skills as a targeted youth outcome, arts programs that intentionally use critical pedagogy have demonstrated development of critical thinking as an outcome (Kronenberg, 2007; Lampert, 2011). Findings from studies of the effect of varied learning environments suggest that participation in collaborative learning processes also may promote the development of critical thinking skills (Gokhale, 1995). This is applicable

in afterschool and expanded learning programs where collaborative learning is a central method of activity design.

More recently, critical thinking has been highlighted has a targeted skill for college success and workforce readiness. Results of two surveys—one from the American Management Association (2012) and one from The Conference Board, Partnership for 21st Century Skills, Corporate Voices for Working Families, and the Society for Human Resource Management (2006)—reveal that employers identify critical thinking as one of the top skills and competencies prioritized for employee selection and development. Collaboration and oral communication skills also were highlighted as priority skills, and these are discussed next.

Communication Skills. When youth develop strong communication skills, they are often seen as being able to make clear and compelling oral presentations, share ideas, clarify information as needed, and adapt communication styles to meet the needs of the audience. Having well-developed communication skills can reduce conflict by avoiding misunderstanding and errors and also can lead to healthier social relationships (Boyd, Lilling, & Lyon 2007; Butler & Stevens, 1997). Many programs that emphasize social and emotional skills and positive youth development more broadly have demonstrated an impact on improving positive social behaviors (see Durlak et al., 2011); however, research on the development of communication skills specifically is less common. Recently, communication skills have received greater attention: An American Management Association (2012) survey reveals that employers feel strongly that their employees need to be able to think critically, solve problems, innovate, collaborate, and communicate more effectively—at every level within the organization.

Collaboration. Collaboration skills are critical to fostering learning and productivity as they enable youth to express ideas, share thoughts, and help their peers (Kafai, 2002). To develop these skills, youth need to learn and understand group process skills, problem solving, critical-thinking processes, (see above) and communication skills (see above; Webb & Farivar, 1994). In an evaluation of the LA's BEST program, staff indicated that they provided teamwork activities and promoted collaboration among youth in the program, and findings indicated that youth ratings of their collaboration and communication skills were positively associated with their sense of self-efficacy (Huang, Gribbons, Kim, Lee, & Baker, 2000). A recent review of the literature (Farrington et al., 2012) suggests that, although social skills, more broadly, may be less effective in terms of supporting academic achievement, collaboration skills may be the exception when the context of the classroom emphasizes pedagogy that involves group work and collaborative learning.

Table 1 summarizes existing research for each outcome, noting evidence related to the malleability of each skill (proof it can change in response to an intervention or over time) and the extent to which each skill is a proxy for (i.e., can provide an indirect effect on) school success. The table draws heavily on recent publications from three groups: the National Research Council (Pellegrino & Hilton, 2012), the University of Chicago's Consortium on Chicago School Research (Farrington et al., 2012), and the U.S. Department of Education, Office of Educational Technology (Shechtman et al., 2013)—in particular, the National Research Council's

competencies framework, with a few adaptations.⁵ The third column lists other terms used in the literature to describe these outcomes, in an attempt to promote a common language among the readers of this review.

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⁵ The framework presented in this review was modified from the National Research Council publication *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. Modifications to the framework were influenced by the field scan of Every Hour Counts partners as well as related projects in which the authors are engaged that are also focused on exploring the development of 21st century skills. These include the Ready by 21 Expanded Learning Initiative, the Texas 21st Century Community Learning Centers statewide evaluation, and the Chicago New Options Project/MHA Labs. Advancements in the thinking about the classification of skills would not have been possible without the support of these projects.

 ${\bf Table~1.~Youth~Skills~and~Beliefs~That~Are~Malleable~and/or~a~Proxy~for~School~Success~and~Related~Concepts}$

Skill	Malleable	Proxy	Related Concepts
Critical thinking	Gokhale, 1995; Kronenberg, 2007; Lampert, 2011	AMA, 2012	Problem Solving: systematic cognitive processes that involve (1) using available information to identify and design solutions and (2) applying those solutions appropriately (Kress, Norris, Schoenholz, Elias, & Seigle, 2005).
Persistence	Shechtman et al., 2013 Farrington et al., 2012	Vandell et al., 2006; Vandell et al., 2007; Duckworth & Seligman, 2005; Duckworth et al., 2007	Conscientiousness: a personality trait manifested in characteristic behaviors such as being efficient, organized, neat, and systematic (Thompson, 2008) Delayed Gratification: the ability to resist the temptation for an immediate reward and to wait for a later reward (Funder & Block, 1989) Grit: the degree to which youth stay focused on a long-term goal despite obstacles (Duckworth et al., 2007) Resiliency: the process of coping with adversity, change, or opportunity in a manner that results in the identification, fortification, and enrichment of resilient qualities or protective factors (Richardson, 2002)
Self-regulation	Zimmerman, 2002; Mason, 2004; Fuchs et al., 2003	Shoda et al., 1990; Pellegrino & Hilton, 2012	Self-Control: the ability to avoid impulsive behavior and fulfill short-term obligations (Duckworth et al., 2007) Self-Discipline: the ability to suppress prepotent responses in the service of a higher goal; a choice that is not automatic but rather requires conscious effort (Duckworth & Seligman, 2006) Self-Management: the ability to generate socially approved behavior in the absence of external monitors (Maxwell, 1989)
Collaboration	Huang et al., 2000; Webb & Farivar,	Farrington et al.,	Cooperative Learning: organized activities that promote both

Skill	Malleable	Proxy	Related Concepts
	1994	2012; Kafai, 2002	academic and social learning experiences centered around student collaboration to achieve desired outcomes (Kagan, 1990; Slavin, 1990)
Communication	Durlak et al., 2011	Boyd et al., 2007; Butler & Stevens, 1997	N/A

Education Outcomes

There is substantial evidence that afterschool programs help young people do better in school (Durlak et al., 2011; Granger, 2008; Lauer et al., 2006; Vandell et al., 2007) and that the effect of participation is mediated by (1) the positive youth development qualities of the program and (2) the alignment between outcomes assessed and purposes/content of the program.

High School-Day Attendance, On-Time Grade Promotion, and Low Levels of Disciplinary **Incidents.** In an evaluation of The After-School Corporation (TASC), one year of participation in an afterschool program was linked to an increase in school-day attendance among program participants compared to nonparticipants (Reisner, White, Birmingham, & Welsh, 2001). Similarly, in an evaluation of Providence's AfterZones, participants showed improved attendance by 25 percent over nonparticipants (Kauh, 2011). In a 2013 evaluation of Texas 21st Century Community Learning Centers, American Institutes for Research found that programs that implemented practices to support academic skill-building, youth development, and youth ownership were able to (1) retain students for a longer span of days than programs that did not, (2) show decreases in disciplinary incidents, and (3) have higher rates of student grade promotion (Naftzger et al., 2013). Other program evaluations have found a similar increase in school-day attendance as well as higher promotion rates and lower suspension rates (Espino, Fabiano, & Pearson, 2004; Huang et al., 2000). Likewise, a meta-analysis of afterschool programs that promote social and emotional development among other core components reveals that these programs, when implemented with fidelity, can both improve youth positive social behaviors and reduce conduct problems and antisocial behavior (Durlak et al., 2011; Durlak & Weissberg, 2007).

Evidence of Progress Toward Mastery of Academic Skills and Content. Evaluations of afterschool and expanded learning programs suggest that program participation may lead to mastery of academic skills and content. In an evaluation of LA's BEST (Huang et al., 2000), longer term involvement in the program was linked to higher grades and higher achievement test scores in addition to an increase in school-day attendance. Likewise, a recent meta-analysis by Durlak and colleagues (2011) found that programs that promoted personal and social skills not only saw an increase in positive social behaviors but an improvement in academic test scores as well. Other afterschool programs have found similar results: Youth who participated in school-based programs that included homework help and academic enrichment programs were more likely to have higher grades in reading and in math (Mahoney, Larson, Eccles, & Lord 2005; Pierce et al., 2010). Many of these evaluations (e.g., Pierce et al., 2010) found a positive

relationship between the presence of positive staff-youth relationships and improved grades as well as improved social skills.

Measuring Youth Outcomes

The measurement of youth outcomes, particularly skills and beliefs, is an emerging focus for expanded learning systems and programs, as many are asked by funders and partner school districts to demonstrate their impact on youth. This section summarizes the research team's analysis of the measurement landscape in this area, including several other measures being used by Every Hour Counts partners and other systems in the field to assess youth skills and beliefs. The section begins by discussing the possible purposes for measuring skills and beliefs; purpose should drive the selection and use of measures. Next, the review summarizes the different measures being used and closes with a discussion of several important challenges related to demonstrating impact on these outcomes and suggestions for improvements when demonstrating outcomes.

Purposes for Measuring Skills and Beliefs. Expanded learning programs measure youth skills and beliefs for three main reasons: policy positioning, performance improvement, or proof of program effectiveness. Programs that need to make a statement about what they care about, and why what they do is important, will measure skills and beliefs for positioning purposes, or to signal their priorities to stakeholders. Programs that wish to improve program performance will be interested in skills and beliefs measures that can be used to provide meaningful feedback that staff can use to create actionable plans. Finally, programs that are looking for proof of their effectiveness or return on investment require measures that have value to outside stakeholders as well as internal audiences. For these programs, it is important to establish clear expectations about what constitutes proof to the stakeholders in question, so that resources are not spent unnecessarily. Programs often are influenced by more than one of these purposes simultaneously.

Measures in Use. Many Every Hour Counts partners are currently measuring a set of skills and beliefs, although the instruments used and the specific skills measured vary considerably across partners. Appendix B contains an analysis of nine measures currently in use among Every Hour Counts partners, including local instruments and some that are publically available and being used more widely in the field. These measures include the DESSA-mini, KIPP Character Report Card, PEAR Holistic Student Assessment (HSA), and the Survey of Afterschool Youth Outcomes (SAYO). Table 2 shows the extent to which each of the specific youth outcomes included in a modified National Research Council skills and beliefs framework are measured by the nine tools (included in Appendix B).

Table 2. Summary of Constructs Captured by Measures

Construct	Percentage of Measures That Capture This Construct
SKILLS: <i>Thinking and Processing</i> —Cognitive The capacity to effectively process, evaluate, and use information using structured, logical, and critical thinking	33%
SKILLS: <i>Thinking and Processing</i> —Creativity The ability to generate or reassemble ideas or materials in different or original ways	11%
SKILLS: <i>Thinking and Processing</i> —Metacognition The ability to recognize what one knows, perceive progress, and be aware of (one's own) learning strategies and processes	0%
SKILLS: <i>Intrapersonal</i> —Intellectual Openness The desire and ability to appreciate and approach ideas, situations, and people from different perspectives	33%
SKILLS: <i>Intrapersonal</i> —Work Ethic, Conscientiousness Consistently and thoroughly performing required or important tasks in spite of obstacles or distractions	89%
SKILLS: <i>Intrapersonal</i> —Internal Self-Regulation The ability to use internal (mental-emotional) processes to direct and manage emotions and behavior	44%
SKILLS: <i>Interpersonal</i> —Leadership The ability to intentionally and effectively influence others	56%
SKILLS: <i>Interpersonal</i> —Teamwork and Collaboration The ability to work constructively and cooperatively with others	89%
SKILLS: <i>Interpersonal</i> —Communication The ability to effectively exchange or express information, thoughts, or feelings with others	11%
BELIEFS: Orientation and Appraisal Belief about the value or nature of self, learning, and/or the objects of learning	78%

The information presented in Table 2 shows that intrapersonal skills such as work ethic and conscientiousness and interpersonal skills such as teamwork, collaboration, and leadership are often measured by the tools currently in use. The table also shows that few measures of important skills such as metacognition, creativity, and communication are currently in use.

Challenges Associated With Demonstrating Impact on Skill Development

Measurement and Terminology

A range of disciplines invested in the study of skill development—including afterschool, education, psychology, economics, and mental health—face challenges associated with demonstrating impact on skill development. Skill development is inherently complex, context

dependent, subject to irregularity and regression, and sensitive to adult supports and modeling (Fischer & Bidell, 2006). Further, the field lacks good models of how skills change, particularly over short intervals, and we lack good evidence that our measures are sensitive to change. In many cases, there is underalignment between skills and measures (Shager et al., 2012), and there are important questions as to the validity of youth self-reports about behaviors (Brener, Billy, & Grady, 2003) and experiences (Greenwald, 1997).

Another challenge associated with measuring intermediate outcomes comes from the "jingle-jangle jungle"—the bewildering array of language that complicates understanding among actors and prevents a coherent accumulation of knowledge about the effects of expanded learning experiences (Reschly & Christenson, 2012). In research, a jangle fallacy occurs when two things that are the same or almost the same are labeled differently, and a jingle fallacy occurs when two things that are quite different are labeled equivalently (Reschly & Christenson, 2012; see Peck, 2004 for historical context and a multilevel model for resolving this issue). Jingle and jangle fallacies are present in both the names and definitions of many youth outcomes and associated measures currently used in expanded learning systems.

The definition of skill employed in this review is broad, including knowledge acquisition, retrieval and use, intrapersonal regulation and beliefs (within a person), and interpersonal behaviors (between persons). Most expanded learning outcomes—including more proximal outcomes that are the direct objectives of expanded learning experiences (i.e., improved communication skills) as well as outcomes that are demonstrated in other settings such as classrooms—can be included in this broad definition. This underscores the need for a sound but simple measurement framework that helps to classify the variety of terms and measures used to collect information about different domains (Camm & Stecher, 2010; Weible, Sabatier, & McQueen, 2009).

Finally, the field is not yet clear on how skills transfer between settings. Outcomes such as academic achievement, grade promotion, or school-day behavior often are named as the ultimate goal of expanded learning experiences. However, school success outcomes can be produced through a number of possible pathways, and the field generally lacks a common approach to describing these pathways.

Pathways to Youth Outcomes

The unique strengths of expanded learning programs—flexibility of purposes, content, and staffing—also pose challenges when it comes to demonstrating the effectiveness of their efforts. Like other outside-of-school time environments, expanded learning programs offer many different types of content and are designed to build many different types of skills. In order to measure the impact of programs on outcomes of interest, program leaders need to start by naming the elements of their program and identifying outcomes they believe are related to those elements.

Outcomes evaluated in research should map back onto a program's characteristics, and programs need a sound theory of change that intentionally describes linkages between activities and the intended domains of skill development (Granger, 2008). Both generic and specific qualities of youth experience can influence outcomes. For example, having strong norms for positive youth

interaction could help youth build communication skills, even if a program does not have an explicit focus on developing skills. However, it is likely that the specific outcomes of a dance program that also has strong norms for positive youth interaction will be both communication skills and dance skills (and not math skills). Furthermore, a study of the AfterZones in Providence by Kauh (2011) showed that attendance and breadth of program type led to the biggest effect sizes, whether or not youth specifically participated in activities with academic content.

There is great heterogeneity across systems in the language and logic used to explain both direct and indirect pathways for skill building and school success. The field has not settled on well-established definitions of either pathways or skills in comparison with, for example, the more mature field of early childhood education, which has reconciled developmentally appropriate practice as a pathway to a specific domain of skills commonly referred to as school readiness. By settling on pathways, programs, and ultimately systems, expanded learning programs may be able to demonstrate a more solid range of outcomes.

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Appendix A. Consensus Among Every Hour Counts Partners on Key Skills

To support cross-site comparison of focal skills, measures, and aspirations for future evidence of effectiveness, we gathered three pieces of information from Every Hour Counts: skill development measures the collaborative currently employs; its aspirations for impact on skills; and domains of skill measurement that would be necessary to demonstrate effectiveness of its program. If context (namely, quality of instruction and content, alignment, and engagement) is a primary determinant of skill development, and Every Hour Counts providers selected these tools because they align with program context in their system, then the common skill domains assessed across measures is a way to identify areas of consensus across systems. The aspirational skill domains also were important in determining a consensus set of skill domains to be included in a measurement framework and in a cross-site study.

We classified measures and aspirational outcomes against a framework that draws from three key recent publications from the National Research Council (Pellegrino & Hilton, 2012), the University of Chicago Consortium on Chicago School Research (Farrington et al., 2012), and the U.S. Department of Education, Office of Educational Technology (Shechtman et al., 2013) that focus on skills that underpin success in academics, career performance, and coping with the stressors of daily life. We chose the National Research Council (NRC) competencies to provide the main structure of the framework, with a few important adaptations.

Metacognition was pulled out as separate from self-regulation and added to the thinking and processing competency. Communication was added as an interpersonal competency. Positive self-evaluation was pulled out as a separate, broader competency that includes mindsets and beliefs about learning. We also defined each skill cluster. This framework includes four overarching competency domains: thinking and processing, intrapersonal, interpersonal, and beliefs. Each domain contains up to four skill clusters, defined as follows:

- Thinking and Processing skills
 - Cognitive Strategies The capacity to effectively process, evaluate, and use information using structured, logical, and critical thinking
 - Creativity The ability to generate or reassemble ideas or materials in different or original ways
 - Metacognition The ability to recognize what one knows, perceive progress, and be aware of (one's own) learning strategies and processes
- Intrapersonal skills
 - Intellectual Openness The desire and ability to appreciate and approach ideas, situations, and people from different perspectives
 - Work Ethic/ Conscientiousness Consistently and thoroughly performing required or important tasks in spite of obstacles or distractions
 - Self-Regulation The ability to use internal (mental-emotional) processes to direct and manage emotions and behavior
- Interpersonal skills

- Teamwork and Collaboration The ability to work constructively and cooperatively with others
- o Leadership The ability to intentionally and effectively influence others
- Communication The ability to effectively exchange or express information, thoughts, or feelings with others

Beliefs

 Mindsets, Orientations, and Appraisals – Beliefs about the value or nature of self, learning, and/or the objects of learning

We compared each of the measures used by Every Hour Counts partners (as well as their aspirations for measurement) and other relevant tools (the University of Chicago Consortium on Chicago School Research: Becoming Effective Learners – Student Pilot Survey) against the definitions in the framework. For each measure, we reviewed the items that made up a scale and aligned the full scale with the category on the framework that contained the best match. For example, in the KIPP Character Report Card, the scale or character strength *Social Intelligence* is defined as "being aware of motives and feelings of other people and oneself," and the items on the measure are: "(1) Able to find solutions during conflicts with others; (2) Demonstrates respect for feelings of others; (3) Knows when and how to include others." Upon reviewing the definition and items, this concept aligns with the framework category Interpersonal Skill—Teamwork and Collaboration, as defined by the ability to work constructively and cooperatively with others. Concepts that were not strongly aligned to a skills cluster in our framework were included in the crosswalk and denoted with an asterisk (*). The original crosswalk included concept/scale names and was later condensed to Appendix B and Table A-1. The item-level crosswalk is available from the authors upon request.

The measures included: locally developed (Chicago After School Matters, Used in 2013); locally developed (Hartford Partnership for Student Success, 2013); the YPQI Youth Day of Observation Survey (HighScope Educational Research Foundation, 2006); the Knowledge is Power Program (KIPP) Character Report Card (Knowledge Is Power Program, n.d.); the Devereaux Student Strengths Assessment (DESSA) (LeBuffe, Shapiro, & Naglieri, 2009); the Survey of After-School Youth Outcomes (SAYO) (Miller & Surr, 2007); the Developmental Assets Profile (DAP) (Search Institute, 2004); the Program in Education, Afterschool and Resiliency (PEAR) Holistic Student Assessment (HSA) (Noam et al., 2012); the Youth Outcomes Measures Online Toolbox (YOM) (Vandell et al., 2011); the Nashville AfterZones Youth Survey on Asset Building (adapted with permission from the YMCA Purple Kit) (YMCA of the USA, 2002a); YMCA Purple Kit (YMCA of the USA, 2002b); and the University of Chicago Consortium on Chicago School Research: Becoming Effective Learners – Student Pilot Survey.

Table A-1 provides a crosswalk of current and aspirational outcomes of interest as indicated by the measures currently in use among Every Hour Counts partners. Four skill clusters emerge as consensus outcomes: (1) cognitive strategies; (2) work ethic/conscientiousness; (3) leadership; and (4) mindsets, orientations, and appraisals.

Table A-1. Crosswalk of Current Measures and Aspirations

	Thinking and Processing			Intrapersonal			Interpersonal			Beliefs
	Cognitive Strategies	Creativity	Metacognition	Intellectual Openness	Work Ethic/ Conscientiousness	Self-Regulation	Teamwork and Collaboration	Leadership	Communication	Mindsets, Orientations and Appraisals
Perceived outcome measures (as selected by cities in survey or identified via interview)	27%	27%	0%	0%	27%	36%	64%	64%	36%	55%
Current outcome measures (instrument used)*	45%	9%	0%	45%	91%	55%	64%	91%	27%	82%
Aspirational outcome measures	91%	64%	0%	9%	45%	36%	27%	64%	45%	27%

Appendix B. Measures

MEASURE	Adapted Search Youth Assets DAP/ YMCA USA Purple Kit Survey	DESSA- mini	KIPP Character Report Card	Local - Chicago Spring 2013 Teen Survey	Local- Hartford Community Schools Youth Participant Survey	PEAR Holistic Student Assessment (HSA)	Survey of After- School Youth Outcomes (SAYO)	Youth Outcomes Measures Online Toolbox (YOM)	University of Chicago Consortium on Chicago School Research: Becoming Effective Learners – Student Pilot Survey	YPQI Engagement Survey - Day of Observation Measure
SKILLS—Thinking and Processing—Cognitive Strategies: The capacity to effectively process, evaluate, and use information using structured, logical, and critical thinking										
SKILLS- Thinking and Processing - Creativity: The ability to generate or re-assemble ideas or materials in different or original ways.										
SKILLS—Thinking and Processing—Metacognition: The ability to recognize what one knows, perceive progress, and be aware of (one's own) learning strategies and processes										
SKILLS—Intrapersonal— Intellectual Openness: The desire and ability to appreciate and approach ideas, situations, and people from different perspectives										
Work Ethic, Conscientiousness: Consistently and thoroughly performing required or important tasks in spite of obstacles or distractions										

MEASURE	Adapted Search Youth Assets DAP/ YMCA USA Purple Kit Survey	DESSA- mini	KIPP Character Report Card	Local - Chicago Spring 2013 Teen Survey	Local- Hartford Community Schools Youth Participant Survey	PEAR Holistic Student Assessment (HSA)	Survey of After- School Youth Outcomes (SAYO)	Youth Outcomes Measures Online Toolbox (YOM)	University of Chicago Consortium on Chicago School Research: Becoming Effective Learners – Student Pilot Survey	YPQI Engagement Survey - Day of Observation Measure
SKILLS—Intrapersonal— Internal Self-Regulation: The abilities to use internal (mentalemotional) processes to direct and manage emotions and behavior										
SKILLS—Interpersonal— Leadership: The ability to intentionally and effectively influence others										
SKILLS—Interpersonal— Teamwork & Collaboration: The ability to work constructively and cooperatively with others										
SKILLS—Interpersonal— Communication: The ability to effectively exchange or express information, thoughts, or feelings with others										
BELIEFS—Orientation and Appraisal: Belief about the value or nature of self, learning, and/or the objects of learning										

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