

NATIONAL COMMISSION ON SOCIAL, EMOTIONAL, AND ACADEMIC DEVELOPMENT

A Research Agenda for the Next Generation

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ABOUT THE COMMISSION AND THIS BRIEF

The Aspen Institute National Commission on Social, Emotional, and Academic Development was created to engage and energize communities in re-envisioning learning to encompass its social, emotional, and cognitive dimensions so that all children can succeed in school, career, and life. The Commission's members are leaders from education, research, policy, business, and the military. The full Commission team includes a Council of Distinguished Scientists (CDS), a Council of Distinguished Educators (CDE), a Youth Commission, a Parent Advisory Panel, a Partners Collaborative, and a Funders Collaborative.

The process for developing this brief began with discussions between members of the Councils of Distinguished Scientists and Educators. It was also informed by a careful review of the CDS consensus statements of evidence (The Evidence Base for How We Learn). In addition, in September 2017, members of the CDE and CDS met together for a one-day convening during which the group brainstormed and came to consensus on the major domains that should be covered in a research agenda for the next generation. These conversations seeded the idea that a set of basic principles that underlie research in all the domains exists and should be made explicit. These sources of data (the discussions, the notes from the September meeting, and the existing briefs and materials) were transcribed and organized so that our team of authors could review them, discuss and brainstorm, and condense them into the ideas presented below. This document has also been revised with the perspectives and suggestions of a wide variety of reviewers.

With those frameworks in mind, we organized the research questions for the next generation in a rough hierarchy to represent the idea of nested systems (the individual; learning settings, including classrooms, in-school, and out-of-school contexts; and broader structures and systems). Throughout, we tried to emphasize a number of key concepts: that human development occurs through developmental interactions and in dynamic intersection with settings and contexts and that questions for the next generation must represent the reality, experiences, and perspectives of each and all, whether that is children, youth, adults, or various types of schools, settings, communities, cultures, and geographies.

In addition to this Research Agenda, the Commission has released three related reports: A Practice Agenda in Support of How Learning Happens developed by members of the CDE; A Policy Agenda in Support of How Learning Happens developed by the Commission's policy subcommittee; and the Commission's culminating report, From a Nation at Risk to a Nation at Hope, which reflects key points from all three agendas. All of these documents, and related resources, can be found on our website at www.NationAtHope.org.

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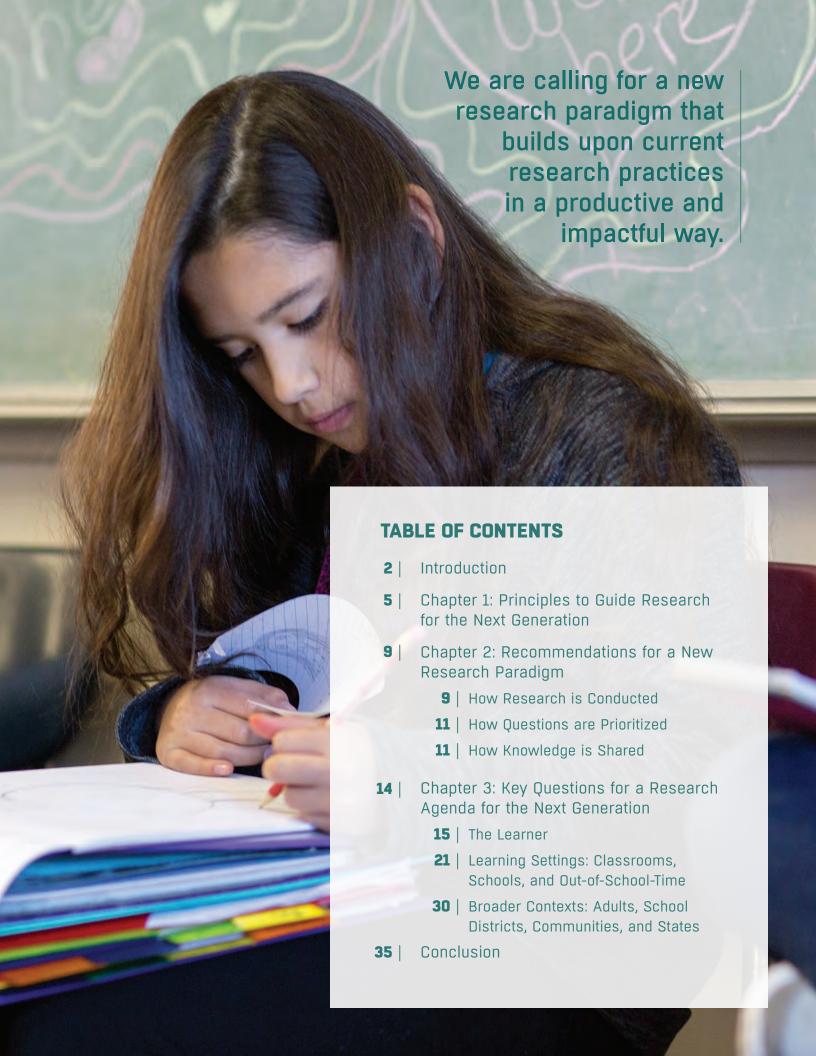
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INTRODUCTION

Decades of research and practice in child and adolescent development have left us with a foundational body of knowledge that tells us:

- Social, emotional, cognitive, linguistic, and academic development are deeply intertwined in the brain and in behavior and together influence school and life outcomes, including higher education, physical and mental health, economic well-being, and civic engagement.
- Social, emotional, and cognitive skills, competencies, habits, and attitudes grow and are fostered in rich and supportive relationships and influenced by the experiential and contextual landscape of human development.
- An array of existing programs and approaches have been shown to be effective in cultivating and supporting this body of competencies and can be enacted in formal and informal learning environments from early childhood through young adulthood.¹

This body of evidence derives from many disciplines; spans qualitative and quantitative research, correlational and longitudinal studies, and quasi- and fully experimental trials; and fundamentally reflects a growing and increasingly robust and rigorous science of human development in context.² We also know that learning happens in a variety of

environments, both formal and informal, across the day and across the lifespan.

In outlining a research agenda for the next generation, we devote significant attention to schools from early childhood through secondary. Given the amount of time most children spend in schools, they are clearly critical contexts for learning and development. We also address the central importance of other learning settings, including afterschool programs and other key community settings outside of school that support child and youth development.

As we think about an agenda for the next generation of research to support wholechild and adolescent development across learning settings, we must address two critical challenges:

- Researchers build knowledge, but knowledge and evidence do not reliably inform meaningful changes in school practice or design or in the quality of youth programming.
- Educators, school leaders, out-of-schooltime (OST) providers, and district administrators search for guidance, but cannot easily access the information they need in a form that actually helps them apply research evidence to their work.

To address these questions, this document is organized in three primary sections. We first articulate seven foundational **principles** to guide research for the next generation. The principles are not intended to be exhaustive or definitive, and do not necessarily represent new ideas. They are intended instead to serve as a form of checklist—a way to think about what's necessary in next-generation research to ensure that it is applied, impactful, and action-oriented, serving as a guide to future research- and practice-based inquiry that holds as its ultimate goal improving the educational experiences and life chances of each and all children and youth across learning contexts. We then present our recommendations for a new research paradigm for the next generation to support the whole learner. In the final section we describe a set of key **research** challenges for the next generation organized into three major areas. In each area, and in the sub-areas within them, we provide a brief overview of what we currently know and then articulate major research themes and illustrative research questions that represent our view of what's next. Across the areas, we include important issues of equity, context, representation and reflection of multiple populations, as well as measurement and assessment

Taken together, the principles, new research paradigm, and illustrative questions we present here are in service of the broader goal of integration—that is, weaving social, emotional, and cognitive development together and into the fabric of formal and informal learning opportunities. We focus on integration here because, as noted above, we have a science that tells us in general terms what competencies are important and whether programs and interventions can work. What's needed now is a new scientific enterprise that pushes these boundaries toward questions of how social, emotional, and cognitive competencies grow and change over time and in key contexts; do strategies and practices work in the real-world conditions of children, parents, educators, and communities today; why are some approaches or strategies more or less effective

PLEASE NOTE

As we use the term **educator** throughout our recommendations, we include the following individuals unless otherwise specified: classroom teachers; school administrators and district-level staff; school librarians; paraprofessionals; specialized instructional support personnel (including but not limited to counselors, social workers, psychologists, and other related services personnel); non-instructional school staff members (including but not limited to coaches, custodial staff, cafeteria staff, and school office staff); as well as youth development professionals working in and out of schools.

Additionally, as we use the term student, we include children in grade levels preK-12, spanning all physical, emotional, social, psychological, and cognitive abilities; all socioeconomic, regional, and familial backgrounds; all races, ethnicities, languages, tribal status, and nationalities; all genders, identities, and orientations; and all religious and spiritual affiliations.



RESEARCH-BASED OR EVIDENCE-BASED?

Frequently practices, strategies, and programs are described by stakeholders as "research-based" or "evidence-based" (and sometimes "science-based"). While these terms may seem interchangeable, and are often used interchangeably in the world, there are important differences between them. Research-based typically means that a program, strategy, approach or idea is built on relevant theories and the aggregation of correlational or basic research, but hasn't been tested directly. Evidence-based, in contrast, means that a program or approach (or idea) has been explicitly tested for efficacy. This typically means it has been compared to another program or approach, or to "business-as-usual," to see if it results in outcomes for students or teachers (or other participants) that were expected.

than others; who is critical to this work; what are the conditions in settings that optimize outcomes; and what are the sources of variation in the answers to these questions, in other words, why do some approaches benefit some children and not others? Critically important is the question of how research on whole-child and adolescent development can shed further light on the systemic production and potential interruption of inequitable educational outcomes across race, socio-economic class, gender, disability, language learner status, and other social or geographic categories.

The audience for this document certainly includes those engaged in building knowledge—those who view themselves primarily as researchers—but it is also designed for other key stakeholders who use, shape, and support research, including those in the funding, policy, and practice communities. We propose an approach that emphasizes collaborative action research, requiring the direct participation of multiple stakeholders, including researchers, educators, community members, parents and other key adults, as well as policymakers; builds research to respond to practical questions that arise from the work on the ground; and situates the research endeavor in the natural settings in which children and youth live and learn. We contend that this approach will not only produce the most directly relevant research but will also build the capacity of both researchers and practitioners to take on new challenges in their respective roles.

CHAPTER 1: PRINCIPLES TO GUIDE RESEARCH FOR THE NEXT GENERATION

The seven foundational principles presented below are core ideas that undergird how research gets done. Research that adheres to these basic ideas is applied, impactful, and action-oriented, and in consequence, is the kind of work that maps to our recommendations for a new paradigm that are described later in this document.

Research that has impact embodies both rigor and relevance.

Research that is rigorous embodies basic scientific concepts, including careful and transparent study design that incorporates guidelines for statistical power and hypothesis testing, the use of valid and reliable measures and tools, analytic methodologies that are closely aligned to research questions, and honest and clear reporting of positive, null, and negative effects and associations. Research for the next generation is both rigorous and relevant. It responds to, and is situated in, real-world, contemporary problems that arise from practical work on the ground. It also incorporates lessons from the expanding science of implementation.³

Moreover, research that is relevant is timely—it happens in a manner that is quickly shared and easily translated for practical application. This means research is conducted inside real educational settings, with and by practitioners. It therefore reflects the questions that practitioners, educators, and policymakers want and need to be addressed in order to make strategic decisions, improve practice, effectively serve a broad and diverse population, and cultivate and support the profession. Building a relevant science of social, emotional, and cognitive development necessitates the tried and true longitudinal and experimental methods—incorporating

qualitative and quantitative measures—that have provided the rich evidence base we have today. (See text box for a note on the difference between the terms "research-based" and "evidence-based.") It also relies on newer methods and approaches that directly incorporate and elevate practice-based work, including, for example, participatory action research as well as smart and adaptive designs that are responsive in short cycles to new information.

A dynamic, bidirectional relationship between research and practice demands *precision*.

When research and practice are in a close relationship, there are clear links between research on one particular outcome or competency (the evidence); a plan for fostering that outcome in a particular setting or developing that competency or set of skills in children, youth, and/or adults (the strategy); and a measure or set of measures to determine if these efforts were successful (the evaluation). The relationship is iterative, forming a research-practice cycle that both facilitates evidence-based practice and enables us to learn from our efforts and add to what we know about the field as a whole. Importantly, it is the words we use (or don't use)—the specific terms and the meaning, or definitions, we ascribe to them—that maintain those connections. When outcomes, constructs, or competencies have multiple names and definitions as they do in the broader field that encompasses social, emotional, cognitive, character, personality, moral, civic, and academic development, it becomes much harder for researchers, practitioners, and other stakeholders to sort through such an extensive body of research to determine where the links between evidence, strategy, and evaluation exist. This jingle-jangle

fallacy—where one term has multiple meanings and different terms have the same meaning—have created impediments to cross-disciplinary research and theory-building. Research for the next generation employs terminology that is transparent, precise, and specific, ensuring that stakeholders work with a common and shared understanding of the core constructs and ideas. In emphasizing precision and transparency, our field will develop a better understanding of which skills and competencies are the same, which are different, and which overlap across disciplines, ultimately allowing us to move beyond fads and quick-fix approaches to closer alignment between research and evidence, programs and strategies, and assessment and evaluation. It is important to note that precision does not apply only to constructs and outcomes but is equally relevant to practices and strategies (e.g., what is actually meant by "project-based learning") and settings (e.g., what is a common and shared definition of "school climate"). Getting precise and transparent means putting our own biases and belief systems on the table as researchers with different interests, varied training, and diverse disciplinary traditions.4

Assessment is a tool for *continuous* improvement and *capacity building*, not high-stakes accountability.

There is tremendous interest in identifying and deploying measures and assessments of social, emotional, cognitive, and character skills and attributes so that practitioners and policymakers can easily take the temperature of the children and youth they serve and make decisions about what practices, strategies, and policies to implement. Using data to drive continuous improvement is not new, and continuous improvement implies a form of accountability (i.e., information should inform action and there is accountability tied to action). But unless we (1) have tools that we are confident adequately capture these skills, competencies, and attributes in ways that are sensitive to age, stage, and context,

and (2) are organized around a commitment to using assessment to inform continuous improvement, we risk holding educators and systems accountable to things that we aren't actually supporting them to do. Research for the next generation prioritizes the development and use of assessment and measurement as instruments of formative improvement and capacity building, not simply accountability. This approach is consistent not only with the current state of the science on social-emotional measurement, but also consistent with the science on the optimal conditions for adult learning and organizational change. Assessment for continuous improvement includes, as well, the development and integration of school-wide or setting-wide systems and norms that adequately support the use of data in this way.

Theory of change is the glue that links research and practice; it is a common blueprint to action in both arenas.

Theory of change (ToC, or theory of action, logic models, etc.) is an explicit theory within any given research endeavor about what, how, and why a program, strategy, or intervention will work. Ideally, this theory is co-constructed by researchers and practice partners to maximize its ecological validity. Theory of change is also used as a tool for organizing a system of variables or constructs, depicting a set of hypotheses about how they influence each other. In both cases, the ToC serves as a map to the core assumptions, specific goals, near and distant outcomes, concrete activities, and mechanisms guiding the work. Building directly from the adage "there's nothing so practical as a good theory," ToC can be used as a blueprint for bringing stakeholders together around program and research planning, program implementation, assessment, and evaluation. Research for the next generation employs Theory of Change as a tool to align researchers and practitioners in a common, and agreed upon, plan for action. ToC works to do this by making explicit



the assumptions, actions, and reactions expected in any program, initiative, and/or research endeavor.

Average effects are important, but scaling effective practices requires we know the *active ingredients* and how they work together.

Focusing on the average effects of complex programs allows us to know—in general terms whether or not they "work" and to make predictions about the relative impact of implementing one approach versus another. However, attending only to the average effects of programs, some of which have multiple components, limits our understanding of underlying mechanisms and effective, or active, ingredients (the how and why programs work). Understanding mechanisms and active ingredients is important because one approach or type of program is unlikely to work or be meaningful and/ or desired in all settings, leading to poor fidelity of implementation as programs spread and get adapted to local contexts. If research can illuminate mechanisms and active ingredients within effective programs, practitioners would be able to apply this knowledge to replicate and scale these mechanisms and active ingredients in ways that are resonant with their particular contexts and settings. Research for the next generation seeks to understand mechanisms and active ingredients.

Understanding *variation* is a key to customizing for different developmental needs, experiences, and settings.

Documenting the average effects of programs or interventions generates a critical signal about what can work in the field. However, a singular focus on the signal draws attention away from the noise—that is, the variation in take-up, response, and impact that is essential to understand in order to tailor supports, practices, and strategies to individual needs and opportunities. Further, using averages to represent whole groups—whether they are groups defined by socio-demographic characteristics like race/ethnic background, or specific experiences or contexts—assumes uniformity in human development that ignores the reality and complexity of setting, culture, values, and individual experience-based variation. The science of learning and development as well as broad tenets of social science tell us that people are situated differently

and have different experiences from one another within any given social setting. Understanding and responding to these differences is a critical challenge for researchers. Concretely, capturing or understanding variation pushes us beyond overly simplistic depictions of groups toward a more thoughtful, asset-focused, and actionable understanding of when and how to tailor strategies to best meet the varying needs of children, youth, and the adults who work with and teach them in classrooms, schools, and other learning settings. Research for the next generation moves beyond averages to represent and act on variation. This principle and the one prior are not unrelated. In truth, better understanding variation is part of understanding how and why programs and strategies work. But understanding variation is also foundational to more basic questions of, for example, how variation in experience shapes developmental trajectories. Taken together, the two principles suggest that documenting average effects is important, but scaling effective practices requires that we know the underlying mechanisms of change and have a sense of how practices might be tailored to reflect variation that stems from a host of factors, within and between populations.

Structures and processes go hand in hand; focusing on one without the other impedes integration and meaningful change.

Structures are the tangible, concrete parts of any plan, strategy, program, or intervention. They are the concrete elements that serve as the pillars or core components of practice and typically are visible in everyday work. Structures might include curricular materials, ongoing assessments, staff and educator training, or professional development and support. Processes, on the other hand, are not tangible and easily seen, but they are what make structures effec-

tive. They are the interactions, relationships, and essential practices that result from using a structure well.

For example, what is the level of trust (a process) among adults in a school who are implementing a new program (a structure)? What are the opportunities for educators to collaborate and develop ownership (process) of new curriculum or assessments (structures) before they are put into use? It is therefore the processes and the structures together that are tied to change and improvement, and these are often what is depicted in a theory of change (see above). However, in many cases, the emphasis has been placed on structures alone, assuming that simply putting a structure in place, or documenting its use—e.g., a curriculum or new practice—will result in improvement. Research for the next generation addresses both structures and processes to support integration and meaningful, lasting change.



CHAPTER 2: **RECOMMENDATIONS FOR A NEW RESEARCH PARADIGM**

Year after year, thoughtful, dedicated scholars in education, neuroscience, cognitive and developmental psychology, and a range of other disciplines are building an incredible knowledge base on topics spanning every conceivable aspect of schooling, learning, and development from early childhood through preK-12 to higher education.

Meanwhile, impassioned educators, school and program leaders, youth development staff, and district and state administrators are looking for research and evidence-based practices to inform their efforts. Yet, with the abundance of new approaches and programs, both mandated and voluntary, many of these professionals struggle to make sense of complicated, often contradictory information. And at the same time, many schools and classrooms remain largely unchanged, employing approaches that we know to be inadequate in preparing children and youth for meaningful participation in the 21st century.

What is wrong with this picture? As stated earlier, in building an agenda for the next generation of research on whole-child and adolescent development across learning settings, we sought to address these two central challenges:

- How might the knowledge and evidence that researchers produce more reliably inform meaningful changes in school practice or design or in the quality of youth programming?
- How do we ensure that educators, school leaders, OST providers, and district administrators can more readily access the information they need in a form that actually helps them?

To this end, we recommend a New Research Paradigm for the Next Generation, distinguished by

changes in how research is conducted, how questions are prioritized, and how knowledge is shared. Central to this paradigm shift is the development of meaningful professional learning communities in which key stakeholders—including researchers, school and program leaders, educators and staff, policymakers, and youth themselves—engage in collaborative inquiry and learning.

In calling for a new research paradigm, our intent is not to replace the existing paradigm, but rather to build upon current research practices in a productive and impactful way. We are quite confident that most of the education research conducted in the foreseeable future will continue exactly as the enterprise currently operates, with researchers engaged in basic science to build knowledge that is disseminated to the academic community through peer-reviewed research journals. Graduate students will no doubt continue to be apprenticed into these traditional modes of inquiry. We affirm the critical importance of "gold standard" experimental design research and of building foundational knowledge, such as work underway in the cognitive sciences, developmental psychology, or motivation research. What we argue for here is a move toward much more practice-focused, community-based, interdisciplinary research and training that adequately supports a next generation of scholars to meet the needs of today's children and youth and the adults who teach them and support their growth and development.

How Research is Conducted

In this paradigm shift, collaborative partnerships between research and practice would draw heavily from Design-Based Research (DBR), Improvement Science, and Action Research principles and methodologies, and would build upon existing research-practice partnerships. Researchers and practitioners would work side by side to address pressing questions, engaging in iterative, collaborative projects set in schools, OST programs, or other learning settings.

Next-generation project teams will be vertical, multidisciplinary, and diverse:

VERTICAL | Individuals at various levels in an organization have important perspectives on and understandings of any given problem or situation within that organization, and generally each has a role to play in implementing any change or solution. For these reasons, next-generation research teams will include practitioners and policymakers from all relevant levels of practice (e.g., educators, school leaders, district administrators) as well as students themselves whenever possible—either as active team members or as frequent consultants during the research process.

MULTIDISCIPLINARY | Trying to affect children's social, emotional, and cognitive development within a complex system may require a range of substantive knowledge that no one person possesses. Next-generation research teams will include scholars with varied kinds of expertise relevant to a problem (e.g., adolescent development, adult learning, culturally-responsive practice, achievement motivation, math pedagogy, implementation science, systems change) and educators/program staff who can bring wisdom and experience in practice to the table.

DIVERSE | Too often, the subjects of a research study (whether children, adolescents, or adults) are themselves not well-enough understood, and the perspectives they bring to a problem are too often ignored. For this reason, an ideal research team for the next generation will include at least one member who reflects the relevant population(s) being studied (e.g., rural students, English language

learners, African-American males, LGBTQ students, immigrant families, student athletes). If this is not possible, teams should create intentional structures and processes to regularly seek input from the relevant communities at key phases of an inquiry project: question formation, root cause analysis, hypothesis generation, study design, data collection, interpretation of findings, iterative rounds of inquiry, and dissemination of results. Findings will be more relevant and more precise when we do research with communities rather than to them.

As they engage in iterative, collaborative research inquiries, project teams will:

- Focus on a mutually agreed-upon problem of practice—one that is of immediate concern locally but that also has broad implications for the larger field.
- Jointly create a "practical theory of change" to identify underlying assumptions across team members, and generate theories about how best to address the problem.
- Engage in "inquiry cycles" to learn together and test out proposed interventions. Inquiry cycles might include:
 - 1. Generating hypotheses about root causes of a problem and brainstorming potential approaches to address it (drawing on expertise of both researchers and practitioners).
 - 2. Conducting small tests of change (i.e., small scale, easy to implement) to deepen the team's understanding of the problem and test out key assumptions.
 - Developing and iteratively improving a theory of change to guide actions and identify measures to detect anticipated change.
 - 4. Conducting "on the ground" tests of implementation in schools or classrooms in which team members observe both the change process and the results, using both qualitative and quantitative data collection methods.

- Attending to variation in implementation processes or results to inform deeper understanding of the intervention's active ingredients or differences in effects across people and contexts.
- Collaborate on data analysis in which project teams check their assumptions, revise the test, and try again—until an effective approach is found.

Conducting local research with an integrated project team enables educators to develop a deeper understanding of the research knowledge base through practical application while receiving expert support and guidance in developing relevant and feasible solutions to challenges in their schools, classrooms, or programs. At the same time, researchers are able to inductively build knowledge of what works, when, for whom, and under what conditions by gleaning principles from one particular case, which they can later test against other cases in other settings.

How Questions are Prioritized

For research to be directly useful to educators, staff, school or program leaders, and district or program administrators, it must address the central problems within their individual contexts. Traditional education research focuses on population-level relationships and generalizable findings, but educators in schools or staff in OST programs want to know, "What matters for my kids and what will make a difference in my setting?"

A learning-focused agenda that responds to vital, local problems of practice might simultaneously contribute to knowledge-building for more generalizable questions, such as:

- How do schools, OST programs, and other learning settings create cultures of learning and healthy social-emotional functioning among adults?
- What elements are essential to have in place (e.g., mission/vision, hiring philosophy, discipline

- plan, norms) before implementing a school-wide initiative for integrating social, emotional, and cognitive development with academic learning in large schools?
- With a limited budget, how should resources be allocated to have the greatest impact? What is the relative return of investing in more recess time vs. more art and music vs. a school social worker vs. a parent center if an elementary school principal wants to best support the social, emotional, and cognitive development of students? What factors should a school leader consider when making resource decisions for a particular population of students?
- How do teachers maintain a culture of high academic expectations when a large percentage of the adolescents in their high school are dealing with significant trauma?

In prioritizing the essential questions in any given focus area, next-generation researchers will consider:

- What are the relevant bodies of knowledge that should inform this question? (This will guide decisions about the kinds of expertise that should be included on a project team.)
- What factors currently impede progress in this area in practice? Once these barriers are identified, ask: Will the research questions we are pursuing address these barriers?
- How do we ensure that this research collaboration best reflects the integrated nature of learning and attends to social, emotional, and cognitive development and processes alongside academic growth?

How Knowledge is Shared (How Findings are Disseminated)

Traditional research publications are designed for an academic audience with substantive expertise in a topic. However, educators, school leaders, and program staff or administrators are not likely to have such deep substantive understanding of the research in a particular area, and as a result they may be unable to decipher or synthesize research in the same way a researcher might. Rather, educators need resources that are problem-focused and build upon their capacity to make informed decisions. The broader education sector can create opportunities for researchers to describe what they know in ways that are directly useful to educators, school leaders, district administrators, OST program staff and administrators, and state policymakers.

Whether research findings come from the types of research-practice collaborations described here or from studies using more traditional research methodologies (experimental and quasi-experimental studies, for example), the products coming out of education research can be much more intentionally crafted to be relevant and accessible to educators and policymakers. Part of a new research paradigm includes taking the next step, beyond producing articles for academic journals, to also craft field-facing summaries that provide guidance for educators and call out specific applications in practice. Oftentimes this will require collaboration with practitioners to get guidance and feedback on framing and relevance.

Our Recommendations for a New Research Paradigm build upon the robust research infrastructure and methodologies that currently exist and provide new opportunities for researchers to engage in collaborative research-practice efforts that not only build generalizable knowledge about whole-child and adolescent development, but change facts on the ground in real schools for real kids.

To support this new paradigm, there are specific roles across the education sector.

Funders (including the federal government) can:

1. Support the creation and dissemination of translational products to inform whole-child and ado-

- lescent development efforts in schools, districts, and OST programs. For example, they could fund multidisciplinary teams to create translational practice-focused research briefs on critical topics that are grounded in evidence on social, emotional, and cognitive development.
- 2. Include funding in research grants for research teams to create a non-technical summary of the implications for practice and present findings to practitioners.
- 3. Provide research funding and incentives for researchers and practitioners to participate in vertical, collaborative, multidisciplinary teams to work on key questions of practice. This includes resources for schools, districts, or OST programs to create the opportunities and structures to support such work.
- Invest in a comprehensive research agenda that includes short- and long-term knowledge and impact goals.

Research universities, in collaboration with school districts and community programs, can:

- 1. Hire and support scholars with extensive direct practice experience or scholarly experience in research-practice partnerships.
- Create training and mentorship opportunities
 for graduate students and early scholars to learn
 to do practice-focused, collaborative research
 that supports holistic student development.
 To address the underrepresentation of people
 of color in education research (particularly in
 school districts serving predominantly low-income communities of color), prioritize the
 involvement and development of young scholars
 of color.
- 3. Incentivize researchers to serve on small, sustained teams to work in collaboration with teacher preparation programs in their own institutions, both to inform the design and improvement of such programs to reflect key principles

- of whole-learner development, and to use them as sites to conduct collaborative research projects on teacher preparation with program staff.
- 4. Incentivize researchers in state colleges and universities to serve on advisory teams to provide consultation to State Education Agencies (SEAs) or Local Education Agencies (LEAs) as they develop new initiatives to support young people's holistic learning and development.
- 5. Create a new practice-focused education research journal that would include both:
 - Translational summaries of key evidence.
 - Research and practice results of collaborative projects.

The broader research and education ecosystems can:

- 1. Create a clearinghouse that serves as a repository of what people are learning across collaborative research projects to efficiently share information, reduce redundancy, improve transparency, and incrementally build theory and generalizable knowledge.
- Develop necessary scaffolding and supports to make a two-way bridge between research and practice. This includes creating processes for developing research-friendly practitioners and practice-focused researchers to build expertise while engaging with one another in this new research paradigm.



CHAPTER 3: **KEY QUESTIONS FOR A RESEARCH AGENDA FOR THE NEXT GENERATION**

Drawing on a collection of bedrock theories that undergird much of the knowledge base in the applied sciences, we offer illustrative questions that situate the research endeavor in the field, respond to practical questions that arise from the work on the ground, and emphasize collaborative action research by encouraging the direct participation of multiple stakeholders including researchers, educators, community members, parents and other key adults, and local policymakers.

The sample research questions below are organized in a rough hierarchy to represent the idea of nested systems:

- The individual learner.
- Learning settings, including classrooms, in-school, and out-of-school contexts.
- Broader contexts, including adults, school districts, communities, and states.

Throughout these illustrative questions, we emphasize a number of key concepts: that human development occurs through developmental interactions and in dynamic intersection with settings and contexts; that measurement plays a critical role in our understanding of individuals and systems, and therefore measurement itself must be a research focus; and that equity is a central consideration in the science, meaning that key questions for the next generation should reflect and interrogate the reality, experiences, and perspectives of each and all—students and adults—across a variety of schools, OST settings, communities, cultures, and geographical locations.



KEY QUESTIONS: THE LEARNER

We have a strong foundation in understanding how children and adolescents learn and grow from decades of seminal research, augmented by methodological advances, across a wide range of disciplines: developmental and educational psychology, cognitive and behavioral neuroscience, social and behavioral economics, to name a few. A broad area of research such as this has much embedded within it that is essential to building a deeper and better coordinated understanding of social, emotional, and cognitive development in key and influential contexts. As noted briefly above, and as is well-articulated in many places, 6 this field goes by many names, comprises a wide variety of concepts and constructs, and remains a challenge to navigate.

THE LEARNER

Which skills and competencies matter, when, and how do they vary?

There is a strong body of evidence indicating that social, emotional, and cognitive competencies develop throughout our lives and are essential to success and well-being at school, home, work, and in the community. In this section, we focus on deepening our understanding of what the most salient social, emotional, and cognitive competencies and attributes are (e.g., self-regulation, emotion knowledge, perspective-taking, self-efficacy, motivation, integrity) for any given age and/or developmental period, how they are linked together within and over time, how they vary based on experience and context, and how they are tied, independently and in combination, to success.

What We Know

Representing a variety of disciplines, organizing systems, and correlational and evaluation research, *The Evidence Base for How We Learn*⁷ indicates there are a variety of skills, attitudes, and values that are embedded in and support learning. These generally fall into three broad categories: (1) skills and competencies; (2) attitudes, beliefs, and mindsets; and (3) character and values.

Skills and Competencies—shown toward the center of the figure on page 16—represents approximately a dozen specific behaviors that decades of research and practice indicate are important. Though they are interrelated, these can be organized into three areas: cognitive, social, and emotional.

Cognitive skills and competencies underlie the ability to focus and pay attention; set goals, plan, and organize; and persevere and problem solve.

Evidence Base for How Learning Happens





- Plan and organize
- Persevere
- Problem solve



- Demonstrate respect toward others
- · Cooperate and work on a team
- Self-advocate and demonstrate agency



Including the ability to:

- Recognize and manage one's emotions
- Understand the emotions and perspectives of others
- Demonstrate empathy
- Cope with frustration and stress

Social and interpersonal skills and competencies enable children and youth to read social cues and navigate social situations; negotiate and resolve conflicts with others; demonstrate respect toward others; advocate for oneself; and cooperate and work effectively on a team.

Emotional skills and competencies help children and youth recognize and manage their emotions; understand the emotions and perspectives of others; and demonstrate empathy.

Importantly, these skills and competencies develop and are used in dynamic interaction with attitudes and values—shown in the second ring in the figure.⁸ Attitudes, Beliefs, and Mindsets includes children's and youth's attitudes and beliefs about themselves, others, and their own circumstances. Examples include self-concept and self-efficacy, and motivation and purpose. These types of attitudes and beliefs are a powerful influence on how children and youth interpret and respond to events and interactions throughout their day. Character and Values represents ways of thinking and habits that support children and youth to work together as friends, family, and community and encompasses understanding, caring about, and acting on core character traits such as integrity, honesty, compassion, diligence, civic and ethical engagement, and responsibility.

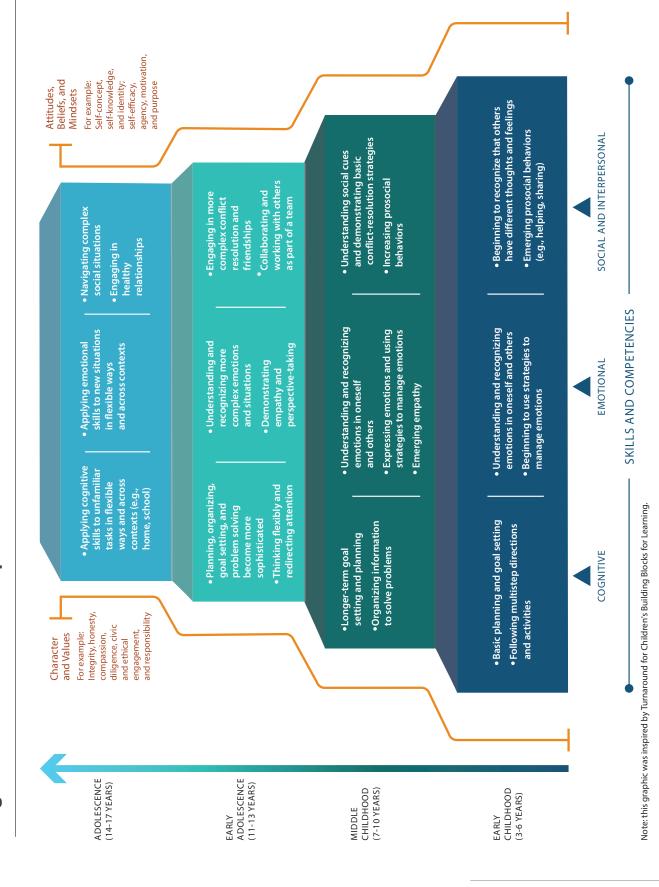
There is an expansive body of research from many disciplines demonstrating that these multiple dimensions of learning are inextricably linked. They develop interdependently and are often processed in the same parts of the brain. When educators integrate social, emotional, and cognitive development with academic learning into classroom culture and instructional practice, the learning environment shifts to one that best supports student learning. And when children and youth possess a full array of these skills, attitudes, and character traits, they are better equipped to prosper in the classroom and to engage in Rigorous Academic Content and Learning Experiences. 10 This overall body of skills, competencies, attitudes, and beliefs is linked to outcomes in both the short and long term, including learning, health, and general well-being. Research also shows that classrooms function better and students learn more when children have the skills to understand and manage emotions, focus attention, persist in the face of difficulty, behave with honesty and integrity, and navigate relationships with peers and adults.11 Indeed, evidence suggests that supporting young children's social, emotional, and cognitive skills through social and emotional learning, character, and related interventions can improve classroom climate and buffer children against the negative effects of adversity, leading to improvements in their social, emotional, behavioral, and academic outcomes.¹²

Critical to naming the skills, competencies, attitudes and beliefs that matter for long-term outcomes is a recognition that these are developed and exercised in contexts and in relationships with others. The outer ring of the diagram notes the importance of contexts and relationships. We offer a set of research questions related to the role of contexts and relationships later in this document.

Finally, there is some scholarship to suggest a developmental progression in which certain skills and competencies emerge and become salient at different periods. An illustration of such a developmental progression is included in the figure on page 19. Although more research is required in this area, the heuristic highlights two key ideas. First, some skills act as building blocks: they serve as a foundation for more complex skills that emerge later in life. This suggests that children must develop certain basic social, emotional, and cognitive competencies before they can master others. Second, some skills are stage-salient: they enable children and youth to meet the demands of a particular developmental stage and/ or setting. In other words, as the environments in which children and youth learn, grow, and play change, so do the demands placed on children in order to be successful, and some social, emotional, and cognitive skills are more or less important at these different times of development. For example, basic cognitive regulation skills begin to emerge when children are 3-4 years old and go through dramatic transformation during early childhood and early school years (ages 4-6), coinciding with the expansion of the pre-frontal cortex of the brain. These skills (often called executive function and self-regulation) lay a foundation for more complex skills later in life such as long-term planning, decision making, and coping skills, among others. As children move through the elementary grades, there is an increased need for a focus on planning, organizing, and goal-setting, as well as attention to the development of empathy, social awareness, and perspective-taking as children develop an increased capacity for understanding the needs and feelings of others. In late elementary and middle school, many children are able to shift toward an emphasis on more specific interpersonal skills, such as the capacity to develop sophisticated friendships, engage in prosocial and ethical behavior, and solve conflicts. As learners move into adolescence, they build further capacity for looking inward and building an integrated identity, 13



An Illustration of the Developmental Progression of Social, Emotional, and **Cognitive Skills and Competencies**



Questions To Be Explored

What's next in this area has to do, at its core, with building a coherent, synthetic, and indisputable distillation of what matters most for healthy functioning in the short and long term, and when critical skills and competencies develop. This necessitates growing and deepening our understanding of these foundational skills and competencies, how they are shaped by experience and context, and how they are linked to future outcomes. With this in mind, the questions below provide a guide for the next-generation research agenda. Better understanding the landscape of this body of skills, attitudes, and character traits; their developmental windows and contexts; and the organization and interweaving of them over time, will drive a clear idea of which dimensions persist and remain important and which recede, laying the foundation for a developmental-contextual map of this domain, and ultimately for better aligned and targeted practices. Key to such a map is the related endeavor of identifying and, when needed, building relevant construct-specific measurement tools.

1. What is the common set of skills, attitudes, and character traits that are critical within and across developmental periods and settings?

- What is the range of functioning in these skills, attitudes, and character traits within and between individuals, and across developmental settings and experiences?
- What is the nature and developmental course of these skills, attitudes, and character traits over time, and to what extent is there socio-demographic variation in the skills and competencies that are valued and developed?
- What are the important developmental windows—or sensitive periods for the development and cultivation of different skills, attitudes, and character traits?
- Are there developmental interdependencies, or sequences, within and between skill areas that would inform the structures and practices of schools and other youth settings?
- What is the role of peers, and peers' development, in these skills, attitudes, and character traits?
- 2. How are the major social, emotional, and cognitive skills, attitudes, and character traits shaped by context and experience?
- What are the characteristics of settings (e.g., home and family structure, classroom, school, neighborhood), cultural contexts (e.g., norms, values, religion), developmental experiences (e.g., relationships, transitions, major life events), and adversity (e.g., trauma, stress) that support the development of different skills, attitudes, and character traits, or that pose a threat to healthy development?
- 3. How are skills, attitudes, and character traits linked to contemporaneous and future outcomes?
- Are there thresholds, or inflection points, that are reliably associated with specific future outcomes?
- What are the common and unique pathways from these skills, attitudes, and character traits in childhood and adolescence to life outcomes in adulthood and how do these associations vary by experiences, settings, cultural contexts, and adversity?
- Are there essential developmental markers of challenge or strength in social, emotional, and cognitive skills, attitudes, and character traits that represent important opportunities for intervention?

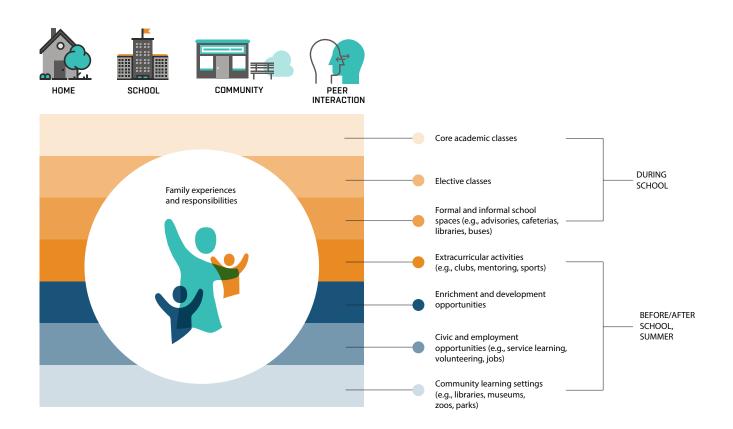
KEY QUESTIONS: LEARNING SETTINGS CLASSROOMS, SCHOOLS, AND OUT-OF-SCHOOL TIME

While there is wide variety in the nature, structure, and types of settings where learning takes place, as is shown in the figure below, across these settings there are two important ways in which features of the context or environment influence the development and expression of these skills and competencies. First, the physical and human resources available in the setting facilitate (or impede) young people's holistic learning and development. For example, we know that children who have positive relationships with adults—those that are contextually and developmentally appropriate, reciprocal, reliable, and flexible—typically have more access to interactions that support social and emotional growth. Similarly, access to developmentally appropriate learning tools and experiences fosters the emergence and growth of social and emotional skills.

Second, features of contexts can influence children's (and adults') expression and use of the skills and competencies they already possess. For example, children are more likely to be able to pay attention to their teacher and their school work in a classroom community where they are not simultaneously worried about or distracted by peer aggression. These contextual factors underscore the critical role that features of learning settings play in shaping and supporting the whole learner.

Where and When Learning Happens

Expanding our understanding of all the places and times young people grow and learn





LEARNING SETTINGS: CLASSROOMS

How does embedding social, emotional, and cognitive learning into classroom settings matter?

Schools are an important context in which to develop children holistically, and these contexts and experiences can be shaped in ways that positively affect development—and much of young people's school day is spent inside classrooms. However, little is known about the specific classroom structures and practices that promote positive development. In this section, we explore ideas for a future research agenda on practices, programs, and approaches to embedding and sustaining social, emotional, and cognitive development with academic learning in classroom settings.

What We Know

Although the majority of the research linking classroom characteristics to student outcomes is correlational and not causal, there is some consistency in findings across studies. ¹⁴ For example, students who report feeling supported by and connected to their peers and teachers are more engaged in learning, perform better academically, are more likely to cooperate with peers and teachers, ¹⁵ and are more civically engaged. ¹⁶ At the same time, the quality of relationships and the classroom climate influence teacher motivation and engagement. ¹⁷

Another important aspect of classrooms is the unique set of social, emotional, and cognitive skills that students and teachers bring and how these influence learning and development. For example, in a recent study, teachers who reported having greater ability to recognize and manage emotions had classrooms that were more positive and supportive than teachers who reported being less skilled in these areas. Likewise, students who score higher on performance-based tests of emotional skills also report enjoying school more, liking their teachers more, and demonstrate fewer learning and attention problems than students who score lower on emotional skills.



Questions To Be Explored

While this body of evidence tells us that classroom settings are an important context in which to support students, much less is known about the specific classroom characteristics that result in positive social, emotional, and cognitive development or the important mechanisms of influence. Importantly, we must consider the experiences and needs of all children. This means learning more about the influence of gender, race, culture, socioeconomic status, and learning differences that impact learning and success. With this in mind, the following questions provide a guide for the next-generation research agenda.

1. Which aspects of classroom organization, structure, and routines influence social, emotional, and cognitive development?

- What are the specific affordances (e.g., the composition of students) and constraints (e.g., children who speak multiple languages coupled with few supports for translating materials) that contribute to children's development?
- What are the influences of school and classroom rules, norms, and policies (e.g., behavior management supports) on students' development?
- How can the physical space of a classroom (e.g., seating, size, materials, lighting) be designed to promote social, emotional, and cognitive development?
- 2. Which classroom practices and approaches are best for promoting social, emotional, and cognitive development, given each child's unique developmental needs and cultural background?
- Which methods or models for embedding a focus on social, emotional, and cognitive development into classrooms are the most effective (e.g., explicit instruction, modeling, school-wide practices)? How might this vary by specific skill area, and what dosage is necessary for optimal results?
- How long does it take for a specific program or approach to affect social, emotional, and cognitive skills and competencies at the classroom level, and under what circumstances (e.g., school-level policies, community characteristics) do we expect to see effects?
- 3. What aspects of classroom climate (e.g., relationships, attitudes) support high-quality implementation of practices and strategies tied to social, emotional, and cognitive development?
- What is the impact of intentionally integrating social, emotional, and cognitive development into the more traditional academic work of classrooms and classroom instruction, and how is this best accomplished?
- How do classroom peer groups influence the implementation and uptake of different approaches and practices in social, emotional, and character development, thereby influencing classroom dynamics, student learning, and healthy development?
- How can teachers and paraeducators work together to support high-quality implementation of practices and what do they need to support implementation?



LEARNING SETTINGS: SCHOOLS

How do schools contribute to holistic student development?

Schools are complex social organizations that include students, educators, staff, administrators, parents and families, service providers, and members of the broader public. As such, school climate is shaped by the ways in which people and resources are organized and interact across time. In this section, we focus on school-level structures, policies, processes, practices, and relationships that together constitute "school climate" and can powerfully influence the social, emotional, and cognitive development of all members of the school community.

What We Know

Prior research suggests an ongoing interaction between overall school structures, policies, and practices and the social, emotional, and cognitive skills, attitudes, and values of the students and adults within them.²¹ Schools communicate both explicit and implicit messages to students and adults that can influence their development. In turn, students and adults have their own perceptions of school climate in terms of its safety, responsiveness, respect, support, and overall quality, which likely influence their behaviors.

Intentionally promoting the social, emotional, and cognitive development of students and adults not only shapes educational outcomes, but also contributes positively to safe and well-functioning schools and classrooms, better relationships among and between adults and students, reduced behavior problems, and deeper engagement in learning.²² However, there is great variability across schools in the overall health and quality of school climates. Within schools, students can have very different perceptions and experiences, based in part on their social or academic status, interactions with educators and peers, and access to opportunities.

Questions To Be Explored

Though existing evidence points to an important role for schools in the social, emotional, and cognitive functioning of the members of a school community, we have much to learn about the specific mechanisms whereby school design, organization, culture, and climate support the positive development of students, educators, and staff. With this in mind, the following questions provide a guide for the next-generation research agenda.

1. How do school organization, design, culture, climate, and resource allocation influence student development across grade levels and differences in student background?

- What are the constraints and opportunities in different school models (e.g., traditional models and those emphasizing personalized, project-based, and/or competency-based learning) for supporting young people's development at different age/grade levels?
- What are the relative impacts of system-level inputs (e.g., arts access, sports programs, counselors, health services, after-school tutoring) on students' developmental outcomes, and what information should guide school leaders in allocating limited resources?
- What are salient micro-contexts (e.g., playground, cafeteria, hallways, main office, sports field, classroom, peer contexts) that shape students' daily experiences and ongoing learning and development at school?
- How do interactions and relationships between and among members of a school community (students, educators, school leaders, school staff, parents) influence students' social, emotional, and cognitive development?
- How do systematic experiences shape patterns of group behavior? For example, if one subgroup of students experiences punitive disciplinary actions in response to behaviors that other students are not disciplined for, how does that shape the development and subsequent behavior of each group?
- 2. What does it mean for a school community to be **culturally responsive** in its approach to student development?
- What are common features (structures, policies, practices, messaging, principles, values) across school communities that successfully support the development of young people from different races, cultures, and backgrounds?
- What is the meaning and value of different perspectives (student, educator, leader, parent, community) on what happens in schools, and how might multiple perspectives contribute to identifying and removing structural barriers that impede some students' learning and development?



3. What are the best indicators that schools are moving in the right direction in supporting students' social, emotional, and cognitive development?

- What are common developmental pathways for schools that have successfully improved their culture and climate and their support of the whole learner, and what are critical first steps in that journey?
- What are reliable indicators of developmentally supportive schools?
- What kinds of measures (of students, educators, and/or school environments) are needed to shed light on specific school-level mechanisms of development?

4. What competencies, beliefs, and practices are most critical for educators across grade levels and contexts?

- What theoretical models have the most utility for articulating the requisite competencies for educators of students at various grade levels? What are the key correlates of these competencies?
- What are the best measures for assessing and supporting the development of educator competencies? What are the most appropriate quantitative assessments? What is the role of qualitative measures and observations?
- What are the connections and developmental sequencing among educators' beliefs and classroom practices, especially practices promoting social, emotional, and cognitive development across different ages?
- Do the educator factors that are necessary and sufficient to successfully support the optimal growth of students vary by students' age/grade, academic achievement level, gender, or racial, cultural, socio-economic, or family background?

LEARNING SETTINGS: OUT-OF-SCHOOL TIME

What is the role of **out-of-school-time settings** in young people's holistic development?

Out-of-school-time (OST) settings provide a unique opportunity for promoting whole-child and adolescent development. OST settings tend to have greater flexibility in their goals and mission and do not face the curricular demands that often undermine such efforts during the school day. Young participants also tend to opt into OST programs, and their voluntary nature is generally in contrast with compulsory school settings. OST settings also tend to be less formal and structured, offering increased opportunities to develop the type of close, trusting relationships that enhance students' holistic development. Given the potential impact of these settings on child and youth development, additional research in this area is needed.

What We Know

Research suggests that focusing on young people's comprehensive development in OST settings is beneficial for children across a variety of desirable outcomes. A review of 68 afterschool programs targeting social and emotional learning found that program participants demonstrated positive changes in feelings and attitudes, behavioral adjustment, and academic performance.²³ This review also found that programs using evidence-based skill training approaches were the most effective. Specifically, programs were most effective when they conformed to the SAFE framework, meaning they: included sequenced activities to teach skills, actively engaged students in learning skills, focused time on comprehensive skill development, and explicitly targeted these skills. In addition to these findings, evidence suggests that social, emotional, and cognitive outcomes improve when children and youth have opportunities to practice skills across settings (i.e., school, home, afterschool), and when adult expectations are aligned across these settings.²⁴





Questions To Be Explored

Despite these findings, relatively few evidence-based OST programs have a primary or explicit focus on developing specific social and emotional skills. Nonetheless, social and emotional development is often effectively embedded within their primary focus on arts, sports, service, etc. While many OST providers seek to borrow from school-based social and emotional learning programs, little is known about how to most effectively develop and adapt programs and strategies for these settings. With this in mind, these questions provide a guide for the next-generation research agenda.

1. Which aspects of OST settings are most influential for building social, emotional, cognitive and/or academic skills and competencies?

- What characteristics of OST settings or OST programming are most influential for building social, emotional, cognitive and/or academic competencies, and how might this vary by age or other socio-demographic factors?
- Do particular types of activities (e.g., sports, arts, music, clubs, academic remediation or enrichment) uniquely contribute to the development of particular types of competencies, and if so, what are the mechanisms by which they have such effects?

2. Which **practices** and approaches are best for promoting whole-child and adolescent development in OST settings?

- What are key considerations when developing or adapting programs that build social and emotional skills for OST settings?
- How can efforts to build social, emotional, cognitive and/or academic competencies in OST settings be most effectively aligned with school and community efforts, and how can skill practice and transfer be maximized across settings (e.g., school, family, community)?

KEY QUESTIONS: **BROADER CONTEXTS ADULTS, SCHOOL DISTRICTS, COMMUNITIES, AND STATES**

Educators and administrators across learning settings are pivotal to creating the rich, transformative educational experiences that all children need and deserve. They do this both by influencing the contexts in which children learn, and by providing support, encouragement, challenge, and a safe anchor within those contexts. Yet teaching and other youth development work are demanding and stressful professions, with high turnover rates, especially in under-resourced schools and communities. Attending to the professional capacity and well-being of educators is critical to a next-generation research agenda.

Educational researchers from various sub-fields agree that school districts can be particularly influential with regard to the success and sustainability of educational innovations. Districts are well positioned to facilitate system-wide efforts by cultivating commitment and support among stakeholders, establishing and aligning programming, and building capacity for continuous improvement. Importantly, district leaders control resources needed to support whole-learner approaches, programs, and practices, making their support crucial to implementation and sustainability. To support districts, several communities have engaged in collective impact models in recent years to coordinate services and programming for children and youth across schools, city services, faith-based institutions, and OST providers. Research must attend to the role of districts and communities in supporting whole-child and adolescent learning and development.

The convening power of state leaders gives them a unique opportunity to set priorities, align resources, and enact policies to improve the communities under their jurisdiction. While many states have education policies that support local control by districts, federal policies like the Every Student Succeeds Act (ESSA) can provide important opportunities for states to think about how they can be more intentional about and mobilize resources for students' social, emotional, and cognitive development. Next-generation research pays attention to these broader contexts in which student learning is situated.

BROADER CONTEXTS: ADULTS

What is the role of adults?

As indicated by *The Evidence Base for How We Learn*, the field has focused considerable attention on the social, emotional, and cognitive competencies of children and youth as well as the content and contexts that foster them. However, less attention has been given to the critical role of adults in creating rich, equitable learning environments or engaging with young people in the kinds of supportive relationships that ensure that all students achieve their fullest potential, regardless of background and circumstance. As such, a central concern of research for the next generation is to better understand what educators, school leaders, OST providers, and other adults need to know and do to promote the optimal social, emotional, and cognitive development for all children across developmental periods and contexts—as well as understand the conditions and contexts that best support adult learning and promote educator well-being.

What We Know

Basic and applied research reveals that educators' social and emotional competencies play an important role in the quality of the educational experiences they offer their students.²⁵ In addition, there is evidence that adult biases can have a negative impact on relationships and the quality of instruction and learning experiences afforded to some students, particularly students of color and those from under-resourced settings.²⁶

Given the critical role educators play in shaping positive outcomes for children and youth, training and professional development opportunities are an important mechanism by which educators develop the knowledge, skills, and mindsets needed to deliver and sustain high-quality learning experiences for all children. However, many pre-service programs do not adequately attend to issues of human development and diversity and can be slow to adopt new approaches. In-service professional development opportunities are ubiquitous, but are uneven in focus, quality, effectiveness, and availability across schools and districts. This can result in limited exposure to innovations, variations in uptake, and differential impact on classroom practices.

In addition to the importance of "front line" educators and youth workers, school and program administrators likely play a critical role in deciding on and creating the necessary conditions for optimal teaching and learning. For example, administrators are highly influential in setting priorities and goals; providing human and material resources; building cultures of trust and collaboration; and establishing and sustaining social, emotional and cognitive development programs and practices.²⁷

Questions To Be Explored

Despite the critical role of educators, school and program administrators, and other adults, we know relatively little about what is needed to most effectively prepare adults to support the holistic development of all students, and to do so in a sustainable and measurable way. With this in mind, these questions provide a guide for the next-generation research agenda.

1. What kind of **prepa**ration and support

(e.g., content, structure, frequency) is needed to advance high-quality and sustained implementation of approaches to students' social, emotional, and cognitive and character development over time?

- What are the key features of educator preparation or staff development programs that result in a high-quality implementation of approaches to social, emotional, cognitive, and character development across diverse learning settings?
- What is the necessary preparation for educators or program staff who work with students and families who are very different (e.g., culturally, socio-economically, politically, religiously, linguistically) from themselves? How do schools and OST programs ensure that adults can effectively bridge these differences so they do not undermine learning and development?
- What types of coaching supports are most viable and effective for the continuous improvement of high-quality practice in classrooms and other learning settings?
- What are the most effective marketing and recruitment strategies to improve the quantity, quality, and diversity of undergraduate students enrolling in education programs?

2. What knowledge and resources do school and program leaders across contexts need to support and motivate educator learning, educator well-being, and practices that foster students' social, emotional, and cognitive development?

- What policies and practices can school leaders and program administrators use to reduce educator/staff turnover and increase well-being and job satisfaction?
- What strategies and processes can school leaders and program administrators employ to bring coherence and integration to potentially competing academic, and social, emotional, and cognitive learning demands, approaches, programs, and practices?
- How can school leaders and program administrators organize, encourage, and empower key stakeholders to align efforts and create synergies to maximize the social, emotional, and cognitive learning of children and youth, especially in under-resourced settings?
- How do schools and OST programs develop and effectively employ a system of continuous improvement, reflection, and feedback to optimize educator/staff competencies and the quality of instruction?

BROADER CONTEXTS: SCHOOL DISTRICTS, COMMUNITIES, AND STATES

What is the role of broader structures and systems, including **school districts, communities, and states?**

District- and state-level supports are essential to maximizing the likelihood that schools are places where adults work together to promote the comprehensive development of each and every student. Community partners, likewise, play key roles in ensuring that schools and other learning settings are aligned within local communities. Yet, there is relatively little research on how district, community, and state-level efforts can most effectively support whole-child development.

What We Know

While there is a limited body of research on district-led innovations for improving learning and positive student outcomes, research suggests that systemic social and emotional learning and character development programs and approaches can be implemented successfully and are tied to a number of outcomes at the district level (e.g., positive system-wide climate, clarity of roles and responsibilities) and at the student level (e.g., increased attendance, academic performance, fewer disciplinary referrals).²⁸

Research has also demonstrated that aligning norms, expectations, and messaging across learning settings can have a positive impact on students' comprehensive development, and that collective impact efforts can move the needle on important youth outcomes. Yet, there are considerable challenges to achieving effective and lasting partnerships.²⁹

Leadership at the state level also has the potential to be a powerful lever of change, yet there is little research on state-led approaches and practices aimed at supporting the holistic development of children and youth.



Questions To Be Explored

While leaders at the district, community, and state levels are well positioned to support the social, emotional, and cognitive development of children and youth, we know very little about the specific activities and resources that are needed to maximize positive outcomes or the best approaches to achieving alignment across settings. Given what we know, these questions provide a guide for the next-generation research agenda.

1. What are the high-leverage activities needed for integration and sustained implementation of districtwide efforts targeting social, emotional, and cognitive development?

- What types of knowledge and supports do district leaders need to effectively plan for holistic educational experiences for students?
- What levers, resources, and processes can district leaders employ to support adult preparation for the implementation of social, emotional and academic learning efforts in schools and in classrooms?
- What district-level policies, strategies, and resources are required to ensure that high-quality, educational experiences are provided equitably across school communities?
- How can districts use continuous improvement data to engage stakeholder groups (e.g., school administrators, educators, school personnel, parents, and community organizations) to ensure high-quality implementation is achieved and sustained over time?

2. What are the high-leverage activities needed for integration and sustained implementation of communitywide efforts targeted to social, emotional, and cognitive development efforts?

- What are the barriers and facilitators to community partners, local school districts, and OST providers working together to support the social, emotional, and cognitive growth and development of children and youth within a community?
- What are the unique contributions of different community partners, families, local school districts, and OST providers to child and youth development, and how might these stakeholders best leverage and learn from each other's strengths to build their overall collective capacity?
- How do communities develop, collect, and use continuous improvement data across settings that would provide meaningful measures of social, emotional, and cognitive development and inform next steps?
- How do communities ensure that rich learning opportunities are offered equitably to children and youth in the community?

3. What are the high-leverage activities needed for integration and sustained implementation of statewide efforts targeted to support whole-child and adolescent development efforts?

- What, if any, are the benefits of adopting state educational standards that reflect students' social, emotional, and cognitive growth and development, and what are the barriers and facilitators to states developing and implementing such standards?
- To what degree do certification and continuing education requirements for educators include training in the social, emotional, and cognitive development of students and adults?
- How do states engage and support district leaders in the use of continuous improvement data within and across districts that would provide meaningful measures of social and emotional as well as cognitive development and inform next steps?
- How do state leaders ensure that K-12 educational innovations are offered equitably across diverse districts?

CONCLUSION

Across disciplines, it is clear that social, emotional, and cognitive skills develop in dynamic interactions with attitudes and values and that they all have a powerful influence on learning and development. Taken together, how children and youth learn, interpret, and respond to events and interactions throughout their day—grounded in safe and relationship-based learning settings and with consideration of broader familial, community, and societal contexts—is crucial to the success and well-being of all children. A foundational and growing body of evidence supports the value of these competencies across contexts and suggests how to effectively foster them. It is imperative that we turn our attention to the future—that is, to how we can

intentionally drive the field forward such that we are building relevant knowledge and disseminating findings to key stakeholders and practitioners in ways that are accessible, pertinent, and actionable and that improve outcomes for children and youth. The principles and guidelines presented here aim to do just that by forging close, bidirectional connections between research and practice. In building upon what we know, these recommendations serve as guideposts for researchers in the next generation, highlighting opportunities for exploration and collaboration across the settings and structures that are relevant to learning and to supporting whole-child and adolescent development.

ENDNOTES

- 1 Jones & Doolittle, 2017; Jones & Kahn, 2017.
- 2 Cantor, Osher, Berg, Steyer, & Rose, 2018; Osher, Cantor, Berg, Steyer, & Rose, 2018.
- 3 e.g., Bryk, 2016; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005.
- 4 Jagers, 2016.
- 5 Lewin, 1943.
- 6 e.g., Duckworth & Yeager, 2015; Jones, Bailey, Brush, Nelson, & Barnes, 2016; Jones & Kahn, 2017; Kamenetz, 2017.
- 7 Jones & Kahn, 2017.
- 8 National Academies of Sciences, Engineering, and Medicine, 2018.
- 9 Jones & Zigler, 2002; Immordino-Yang & Damasio, 2007; Immordino-Yang, 2011; Adolphs, 2003.
- 10 Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson, & Beechum, 2012; Nagaoka, Farrington, Ehrlich, & Heath, 2015; Osher, Cantor, Berg, Steyer, & Rose, 2018; Jones & Doolittle, 2017.
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