



Social, Emotional, and Academic Development: A Research Agenda for the Next Generation

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<i>Table of Contents (for CDS feedback purposes only)</i>	PAGE #
• Introduction	1-3
• Principles to Guide Research for the Next Generation	3-6
• Process	6
• Research Questions for the Next Generation	
○ What matters, when, and how does it vary?	7-8
○ How do classroom settings matter?	8-9
○ How do schools contribute to student development?	10-12
○ What is the role of adults?	12-14
• Education Research for the Next Generation: Recommendations for a New Paradigm	15-16
○ How Questions are Prioritized	16
○ Who Constructs Knowledge / How Research is Conducted	16-17
○ How Knowledge is Shared (How Findings are Disseminated)	17-18
○ Research Paradigm for the Next Generation	18-19

Introduction

Decades of research and practice in social, emotional, and academic development have left us with a foundational body of knowledge that tells us: (1) social, emotional, 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; (2) social, emotional, and academic competencies, habits, and attitudes grow, and are fostered, in rich and supportive relationships and are influenced by the experiential and contextual landscape of human development; and (3) there exists an array of programs and practices that have been shown to be effective in cultivating and supporting this body of competencies that can be adopted by and implemented in formal and informal learning

environments from early childhood through adolescence.¹ This body of evidence spans qualitative and quantitative research, correlational and longitudinal studies, quasi- and fully experimental trials. We recognize that learning happens in a variety of environments, both formal and informal. For the purposes of this document, we focus primarily on schools from early childhood through secondary because those settings are a central hub connecting the other major contexts of human development.

With such a strong foundation, what comes next? In the pages that follow we present an illustrative set of research questions for the next generation that build from what we currently know and represent an agenda for transactional research that, by its nature and in its execution, forges a dynamic, bidirectional connection between research and practice. Getting to such a forward-thinking research agenda that is deeply connected to practice requires both looking back and looking forward. In looking back, we draw on a collection of bedrock theories that undergird much of the knowledge base in the applied sciences to identify four primary areas for a next generation research agenda on social, emotional, and academic development. These theoretical perspectives are summarized below, along with a summary of our process for identifying and describing the questions, and include developmental and educational psychology, cognitive and behavioral neuroscience, social and behavioral economics, to name just a few. In looking forward, we articulate not only a core set of specific questions for the next generation, but also a compilation of essential principles that serve as guideposts for our work in the future.

Taken together, the principles summarized below are in service of the broader goal of *integration* – that is, weaving social, emotional, and academic development together and into the fabric of formal and informal learning opportunities. We focus on integration here because, as noted above, we already 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* do 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 than others, and *who* is critical to this work.

Overall, we adopt 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 field. In this way we seek a **new practice-based science of social, emotional, and academic development**. The eight principles below 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 improving the

¹ Jones & Doolittle, 2017; Jones, Kahn, & CDS Aspen SEAD Commission

educational experiences and life chances of each and all children and youth in all learning contexts.

Principles to Guide Research for the Next Generation

1. 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. To date, we have achieved a body of evidence that is rigorous. **Research for the next generation of practice in social, emotional, and academic development is both rigorous and relevant.** It responds to, and is situated in, the real-world, contemporary problems that arise from the practical work on the ground. 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 in vivo, with and by practitioners. It therefore reflects the questions that practitioners, educators, and policy-makers 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 academic development will necessitate relying on newer methods and approaches including for example, participatory action research, smart and adaptive designs, in addition to those that are more typically employed.

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

In a close relationship between research and practice, there is a clear link between research on one particular outcome or competency (the evidence), how we plan to develop that construct in children, youth, and/or adults (the strategy), and how we will measure it to determine if our efforts were successful (the evaluation). The relationship is iterative, forming a research-to-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 – 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, and academic development (described as the jingle-jangle fallacy where one term has multiple meanings, and different terms have the same meaning), it becomes much harder to sort through such an extensive body of research to determine where the links between evidence, strategy, and evaluation really exist. **Research for the next generation of social, emotional, and academic development 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 grow 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 it 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 beliefs systems as researchers with different interests, varied training, and diverse disciplinary traditions on the table.

3. 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, and cognitive skills 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, but unless we (1) have tools that we are confident adequately capture these social, emotional, and cognitive skills and competencies 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 of social, emotional, and academic development uses assessment and measurement as instruments of formative improvement and capacity building, not accountability.** Data employed with this purpose honors the institution of schools, and the processes of schooling, as the central hub in our society that is focused on *learning*, serving as a nexus of growth and change for children and adults alike.

4. **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, and agreed upon, theory about what, how, and why a program, strategy, or intervention will work. 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,”² ToC can be used as a blueprint for bringing stakeholders together, program and research planning, program implementation, assessment, and evaluation. **Research for the next generation of social, emotional, and academic development 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.

² Lewin, 1943

5. Average effects are important, but scaling effective practices requires we know the **active ingredients**.

Documenting the average effects of complex, multi-faceted programs generates a critical signal about what can work in the field. However, a singular focus on the signal draws attention away from the noise. Noise in this case represents variation in take-up, response, and impact that are essential to tailoring supports, practices, and strategies to individual needs and opportunities. Similarly, average effects of multi-component programs limit our understanding of underlying mechanisms and effective, or active, ingredients (the how and why programs work). Because one approach or type of program is unlikely to work or be meaningful and/or desired in all settings, it is essential that we prioritize a focus on illuminating mechanisms and active ingredients that themselves can be replicated and scaled, but in way that is resonant with different contexts and settings. **Research for the next generation of social, emotional, and academic development seeks to understand mechanisms and active ingredients.**

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

Just as average effects obscure critical information about the active ingredients of programs and practices, 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, and experience-based variation. Concretely, capturing or understanding variation pushes us beyond overly simplistic depictions of groups toward a more thoughtful and actionable understanding of what’s needed in our classrooms and schools and when and how to tailor strategies to best meet the needs of each and all children, youth, and adults today. **Research for the next generation of social, emotional, and academic development moves beyond averages to represent and act on variation.**

7. **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 can be seen in the daily 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—not easily seen—but they are what make structures effective. They are the interactions, relationships, and essential practices that result from using a structure well; it is the processes—not the structures—that are tied to change and improvement. Unfortunately, however, the tendency to date has been to build our expectations on structures alone, making the assumption that simply putting a structure in place – e.g., a curriculum or new practice – without careful attention to an explicit and related process (e.g., will this practice improve basic interactions and relationships that are fundamental to social and emotional development?) will result in change. The field is not yet in the habit of focusing on and articulating the processes that go with structures. **Research for the next generation of social, emotional, and academic development addresses both structures**

and processes to support integration and meaningful, lasting change. In this way the next generation of research foregrounds the changing developmental needs and developmental interactions of children and youth at each and every stage and context.

8. Innovation is finding something new in something known.

What does it mean to innovate? Does it necessitate something completely different – a transformation in how we think and act? In our field, we have decades of knowledge grown from basic and applied research. We also have a deep and rich well of practice-based wisdom and experience about the work of schools and schooling. Innovation in our field builds from these roots, and instead of reflecting a new concept, strategy, or practice, is a transformation in *how* research gets done. **Innovation in research for the next generation of social, emotional, and academic development bridges the research-practice divide.** Improving the educational experiences and life chances of each and all children and youth in all learning contexts demands a different way of doing the work. It requires a **new practice-based science of social, emotional, and academic development** that is relevant and responsive, organized around practical questions and knowledge of developmental needs and developmental interactions, situated in the real-world, and executed by practitioner-researcher teams.

Process

The process for developing this brief began with dyad discussions between members of the Council for Distinguished Scientists (CDS) and the Council for Distinguished Educators (CDE). It also was informed by a careful review of the CDS consensus statements of evidence (*The Evidence Base for How We Learn*) which are based on a thorough review of the evidence-base for infusing a focus on social, emotional, and cognitive development into teaching and learning. In addition, in September 2017 members of the CDE and CDS met together for a 1-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. In addition, the group identified a number of specific and illustrative concrete questions that represent each of the four major areas. These sources of “evidence” (the dyad 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 distill them into the ideas that are presented below. In doing this work we also both drew on existing research as well as the major theoretical frameworks from different disciplines that have served as guideposts for work in this area to date. With those frameworks in mind, and following the core idea of Bronfenbrenner’s bio-ecological systems model, we organized the questions for a next generation in a rough hierarchy to represent the idea of nested systems (individual, classrooms, schools, adults, and eventually districts and broader systems). In each section, 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 one type of school, setting, community, culture, geography or another.

Research Questions for the Next Generation

[NOTE: the following sections have not been reviewed and edited for overlap.]

What matters, when, and how does it vary?

For any given age and/or developmental period what are the most salient social, emotional, and cognitive constructs (e.g., self-regulation, emotion knowledge, perspective taking, self-efficacy, motivation) that contribute to success at that point in time, in the future, and across settings?

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 academic development in key and influential contexts. As noted briefly above, and as is well-articulated in many places,³ this field goes by many names, comprises a wide variety of concepts and constructs, and remains a challenge to navigate. Representing a variety of disciplines, organizing systems, and correlational and evaluation research, *The Evidence Base for How We Learn*⁴ suggests there are at least a dozen key skills that decades of research and practice indicate are important, and these include:

- (1) **cognitive skills** including executive functions such as working memory, attention control and flexibility, inhibition, and planning, as well as beliefs and attitudes that guide one's sense of self and approaches to learning and growth;
- (2) **emotional competencies** that enable one to cope with frustration, recognize and manage emotions, and understand other's emotions and perspectives; and
- (3) **social and interpersonal skills** that enable one to read social cues, navigate social situations, resolve interpersonal conflicts, cooperate with others and work effectively in a team, and demonstrate compassion and empathy toward others.

Getting to a coherent, synthetic, and indisputable distillation of what matters necessitates growing and deepening our understanding of these constructs. In particular, guided by the core tenets that have shaped the study of human development for decades, we need to address questions of **variability**, or the range of functioning in the social, emotional, and cognitive areas within and between individuals, asking, **are there thresholds, or inflection points, that are reliably associated with specific future outcomes?** Importantly, addressing questions of variability and thresholds is not simply about identifying group differences in average levels (i.e., documenting that boys and girls are different on average in one area of competence or another), but is instead about better understanding variation within groups, and critically, in relation to developmental experiences and features of settings.

³ e.g., Jones et al., 2016; Jones, Kahn & CDS; Duckworth & Yaeger, XX; Kamenetz (NPR), 2017

⁴ Jones, Kahn & CDS, 2017, pg. 5

Building from the notion that skills, competencies, and beliefs emerge and become salient at particular times in development,⁵ **what are the important developmental windows – or sensitive periods – for the development and cultivation of which constructs?** Can we use information about developmental windows to inform our understanding of the sequencing or developmental progression of skills, competencies, and beliefs within and between the major areas from early childhood to young adulthood?⁶ Understanding these developmental moments, and the organization and interweaving of constructs over time, drives a clear idea of which dimensions persist and remain important and which recede, laying the foundation for a developmental map of this domain. Developmental mapping is a form of blueprint or scaffold for questions that then push our understanding of **how the major constructs in this domain vary and are shaped by characteristics of settings** (e.g., home, classroom, school, neighborhood), **developmental experiences** (e.g., transitions, major life events), **adversity** (e.g., trauma, stress), **and how they are linked to school and life outcomes within and over time.**

How do classroom settings matter?

How do different evidence-based approaches and instructional practices, relationships between and among teachers and students, and classroom organization and structure support children's optimal social, emotional, and cognitive development?

Research shows that schools that focus on children's social, emotional, and academic development produce positive benefits for children and youth.⁷ Both educators and researchers have reached a consensus that integrating approaches and practices designed to teach these competencies is a national priority that needs to be brought to scale. Yet, more research is necessary to unpack the specific approaches, instructional practices, relationship dynamics, and classroom organization and structures that support all children's learning and healthy development, across their preschool to high school educational experience. Importantly, this research agenda must address how to support all children from different backgrounds, including: race, culture, SES, gender/sex, learning differences/challenges, and exposure to trauma. Below are key questions that are in need of further investigation.

Given each child's unique developmental needs, what research is needed to identify the best approaches and practices that address each child's unique social, emotional, and cognitive development?

As articulated in the developmental progressions section above, this area of research requires identifying the specific constructs: *attitudes* (e.g., growth mindset), *skills* (e.g., emotion regulation), and *dispositions* (e.g., temperament), and *competencies* (e.g., relationship skills) *that matter the most for children's learning and healthy development. It also includes identifying which constructs are the most malleable at different developmental periods.* Once

⁵ e.g., Sroufe, 1979; Sroufe & Rutter, 1984

⁶ Cicchetti & Rogosch, 2002

⁷ Durlak et al., 2011; Taylor et al., 2017

the key constructs are identified, it will be important to develop assessment tools that help to both identify and scaffold children's healthy development.

What research is needed to assess how different learning experiences and teaching practices as well as the dynamic relationships between and among teachers and students in classrooms best support children's learning and healthy development?

This area of research requires a deeper understanding of the specific *teacher beliefs* (e.g., mindset around the malleability of students' emotion skills), *dispositions* (e.g., agreeableness), *competencies* (e.g. active listening), and *behaviors* (e.g., how teachers provide feedback) that support children's healthy development in classrooms. In addition, it is necessary to unpack the shared and unique impact of various methods for infusing approaches and practices in classrooms, including: *indirect methods* (e.g., Which competencies are most effectively "caught" through modeling?), *explicit instruction or practices* (e.g., What is the impact of directly weaving into instruction versus teaching through project-based learning), across different grade levels (e.g., What are the best strategies for infusing these competencies into middle school advisory versus high school math?), and *stealth interventions* (e.g., What works or doesn't work with a whole school approach or specific program across grade levels). Finally, the role of classroom *peer communities* is in need of further investigation. Are there specific student networks that influence both implementation and uptake of different approaches and practices that influence classroom dynamics, student learning, and healthy development? All of these areas of investigation will require valid assessments, including self-report, performance, and observational tools.

What research needs to be conducted on the components of classroom organization and structure that support children's healthy development?

This area of research includes a wide range of questions, including: How is the ideal *physical space* designed (e.g., seating arrangements, lighting, class size) to support children's learning and healthy development. In addition, more research is needed on the influence of both school and classroom *rules, norms, and policies* (e.g., behavior management supports) on children's and adult's development. This also includes how different approaches and practices are infused with existing programs that either complement or clash with learning and healthy development (e.g., harsh discipline policies). What's more, relatively little is known about how much time is needed to dedicate to practices and approaches for optimum results. This includes research on implementation fidelity, including dosage and duration of program implementation. The implementation of school-wide expectations to support children's learning and healthy development, including accountability for addressing children's social, emotional, and cognitive development needs further exploration. Finally, the specific affordances (e.g., multi-culture nature of many classrooms) and constraints (e.g., supports for translating materials) need to be evaluated.

How do schools contribute to student development?

What are the roles of school design, school organization, culture, and climate in supporting the optimal development of children and youth across grade levels? What specific structure and process features within schools are linked to the development of young people's social, emotional, and cognitive skills and competencies?

Prior research suggests a bi-directional relationship between overall school structures and processes and the social, emotional, and cognitive skills and competencies of the students and adults within them. As noted in *The Evidence Base for How We Learn*, attending to the social and emotional development of children and youth shapes not only student-level outcomes, but also “leads to safe, well-functioning schools and classrooms characterized by supportive culture and climate, positive relationships, effective classroom management, deeper learning, and reduced behavioral problems.”⁸ Students with more social, emotional, and academic competencies are more likely to be positively engaged in learning and to build better relationships with their teachers and peers,⁹ with positive spillover effects on the broader culture and climate of a school. Likewise, growing evidence suggests that supporting the social and emotional competencies of teachers reduces stress and burnout and improves teacher well-being¹⁰ and retention.¹¹ Students learn important social, emotional, and cognitive competencies by seeing those modeled by peers and adults and reflected in the culture and values of their school.

Though existing evidence points to an important role for schools in the social, emotional, and cognitive functioning of members of a school community, we know little about the specific mechanisms whereby school design, organization, culture, or climate support the positive development of students, teachers, and staff. One way to take up this question is to focus on individual experience. **What are the opportunities for social, emotional, and cognitive development available to each student within the school day, and does the school support development equally well for all groups of children and youth?**

We also need to attend to the role of relationships and daily interactions in various supervised and unsupervised spaces that young people occupy at school. What are salient micro-contexts (e.g., playground, cafeteria, hallways, main office, sports field, classroom, peer contexts) that shape a student's school day? **How do interactions between and among all the people in a school (students, teachers, school leaders, school staff, parents) impede or optimize students'**

⁸ Jones & Bouffard, 2012; Merritt et al., 2012; Okonofua, Paunesku, & Walton, 2016; Okonofua, Walton, & Eberhardt, 2016; Schonert-Reichl, 2017; Taylor et al., 2017

⁹ Denham, 2006; Durlak et al., 2011; Farrington et al., 2012; Greenberg et al., 2017; Jones, Barnes, Bailey, & Doolittle, 2017a; Merritt et al., 2012; Sklad et al., 2012; Weissberg et al., 2015

¹⁰ Jennings et al., 2011, 2013; Roeser et al., 2013

¹¹ Bouffard, 2017

holistic development? These questions require measurement tools and methodologies that can capture the lived experience and sense-making of children and youth within school settings.

Based on existing evidence about child and adolescent learning and development, what kinds of opportunities and experiences should schools provide to students – beyond classroom teaching and learning – to improve a full range of outcomes? **What are the particular constraints and opportunities in traditional school models in supporting young people’s development, and how might this differ from elementary grades to middle grades to high school?** How should school leaders best allocate limited resources? For example, what are the relative impacts of system-level inputs like recess time, lunch time, physical education minutes, music access, counselor access, nurse access on students’ social, emotional, *and* academic outcomes? How do school-level policies, practices, and program adoptions influence important relationships throughout the school? For example, what are the differences in student social and emotional skills if a school has a strongly held set of core values infused into the school culture and climate?

One way to understand developmentally supportive schools is to **study school communities that positively support the learning and development of young people from different socio-economic, cultural, and family backgrounds.** What are the common features (structures, policies, practices, messaging, principles, values) across such school communities? Which features are most developmentally important in which environments or with which student populations? What conditions and supports are necessary for adults and students to co-construct a school that supports holistic development? What does this process look like? What is the most important first step, and what specific strategies are most likely to yield positive results? What are the relative benefits and drawbacks of working on student and staff social and emotional development versus working on building a positive school climate?

Another critical area of research focuses on the role of schools in fostering parent and family engagement. **What are the opportunities for families and the broader community to meaningfully participate in the work of schools to support young people’s social, emotional, and cognitive development?** How do race/ethnicity, socio-economic status, or cultural background of families and communities influence strategies of engagement and participation? What is the impact of aligning school-based efforts with the work of youth development professionals in out-of-school programs? The role of children and youth’s experiences across the settings they inhabit needs to be better understood.

To conduct a next generation of research of social, emotional, and academic development in schools, we need to develop new tools for measuring settings, processes, and experiences. What measures would allow us not only to identify developmentally supportive schools, but also to identify specific mechanisms of development? The field also needs practical measures for continuous improvement. **What are the best indicators that schools are moving in the right direction in supporting students’ social, emotional, and cognitive development, or that teachers and staff are developing more competence and capacity in supporting this development for young people?** What is the meaning and value of different perspectives on

school-level phenomena (student, teacher, leader, parents, community)? How might multiple perspectives contribute to identifying and removing structural barriers that impede some students' success?

What is the role of adults?

The field has focused considerable attention on the cognitive, social and emotional competencies of children and youth and the content and contexts that foster them. Less attention has been given to the critical role of adult learning in preparing and sustaining adults to lead and teach in ways that ensure that all students achieve their fullest potential, regardless of background and circumstance. As such, a central organizing question of a research agenda for the next generation should be:

What do teachers, school leaders and other adults need to know and be able to do in order to promote the optimal cognitive, social and emotional development for each and all children and youth across developmental periods and contexts?

Teacher SEL is key.

The pivotal role of classroom teachers in providing for the optimal growth of children and youth can't be overstated. If teachers are going to be able to create rich, transformative experiences and opportunities for each and every one of their students, teachers need an expanded set of competencies, commitments, and strategies. Some pressing questions that derive from this realization include: **What competencies, beliefs, and practices are most critical for teachers at different grade levels and for which students with varying developmental needs?** A related question that might be germane to professional development efforts is, **what are the connections and developmental sequencing among teacher beliefs, attitudes and their classroom practices, especially practices that reflect social and emotional development?** There are relatively few measures of adult social and emotional competence so there are research opportunities in this area. The growing diversity in K-12 schools, persistent disparities in outcomes, and associated calls for culturally responsive instruction prompt questions regarding **whether the same or different teacher factors are necessary and sufficient to successfully support the optimal growth of students across different cultural, socio-economic, and family backgrounds.** There is a body of qualitative research on teacher identity that might be leveraged to advance our understanding of these issues.

Teacher professional development and supports.

Teachers learn their craft through formal and informal experiences in pre-service and in-service settings. If teachers need an expanded set of competencies, commitments, and strategies in order to create robust experiences for students, then teacher preparation programs, schools, districts, or outside organizations need to provide a series of rich developmental experiences for teachers to support their ongoing learning and discovery, leverage their deep commitment to their students' growth and development, bolster their professional identity, and further build their teaching capacity, repertoire, and impact.

In this connection, significantly **more needs to be known about what are the key features of teacher preparation programs that result in a well-launched, novice teacher across diverse school settings.** This includes an examination of the traditional university-based programs and the range of alternative programs (e.g., TFA, Sylvan). **Particular research attention should be given to the preparation and work performance of teachers who have limited experience with diverse populations, but who end up in schools that serve communities of color and/or are under-resourced.** Ongoing assessment of the progress of these teachers is important for their self-reflection and improvements and for the provision of adequate supports by peers and school leaders.

In-service professional development opportunities are ubiquitous, but uneven in quality and effectiveness. This raises questions such as: **What is the nature (e.g., content, structure, frequency) of coaching experiences that support high-quality teacher learning over time? What are the roles and relative benefits of, for example, external providers and peer coaching models in the teacher learning and classroom practice? How do relationships (teacher-teacher, teacher-principal, teacher-student, teacher-parent, teacher-scientist/researcher) impact teacher learning and performance?** It seems critically important to document and ensure that these various adult learning opportunities adequately address the needs of all and every student and are distributed equitably across classrooms and schools. Additionally, the field needs to figure out **what are the best and most important ways to assess the influences and impacts of these supports for individual teachers and as a teaching staff?**

The need for school leadership.

There is considerable agreement that school leaders play an essential role in deciding on and creating the conditions for classroom teaching and learning. But **what information do leaders need to know and what resources do they need to create supportive and motivating conditions for teacher learning? How does this vary by school context?** Further, it is critical to **examine how schools can and do develop a system of continuous improvement, reflection, and feedback that optimizes teacher competencies and instruction.** For example, we need insights into how human (e.g., classroom substitute teachers) and material (e.g., financial incentives) resources can be best used to devise and sustain such a system. Such research needs to attend to **whether and in what ways factors like staff turnover, shifting school and district initiatives, and funding priorities impact these efforts.**

Attention to teachers should be supplemented with efforts to leverage and integrate the competencies and relationships (student-adult, adult-adult) of all local adult stakeholders to create a school community that is effectively organized around the optimal development of children and youth. To accomplish this, **more needs to be known about what supports are necessary for school staff who work outside of classrooms (e.g., library, lunchroom, transportation, athletics) to act in concert with classroom teachers in modeling and messaging expectations around high-level cognitive, social and emotional competence for children and youth.** Unfortunately, relatively little systematic attention has been given to **the ways in which school leadership, teachers and other school personnel encourage and enact authentic partnerships with parents/caregivers and community stakeholders to create**

alignment and continuities in the cognitive, social and emotional learning of children and youth. This impresses us as a fertile and critical area for the type of applied research that derives from our proposed principles. **Of course, some schools are already successfully engaged in this work. How do we identify and learn about their salient features?**

Since most schools are situated in districts, the guidance and support of district leaders is essential for schools to foster and sustain high levels of learning and development for young people and adults on an ongoing basis. Research should illuminate what district leaders need to know in order to provide sufficient material resources to put in place policies, norms, structures, and practices that institutionalize a focus on the optimal cognitive, social, and emotional growth and development of children and youth, regardless of their backgrounds and circumstances. For example, can schools within and across districts be networked for peer support, coaching, and other forms of resource sharing? What are the ways in which these leaders can sustain this work in the context of shifting demands and funding priorities?

[NOTE: We expect to include a fifth section focused on districts and broader systems level questions.]

The questions in this next generation research agenda reflect the critical work needed to move forward the practice of social, emotional, and academic development. If we act on these research questions and address the known gaps in our understanding of what constructs matter, when, and how they vary; classroom structure and organization; school climate, culture, and design; and adult learning, then we can...

1. Stop holding children and youth hostage to test scores.
2. Disrupt the school-to-prison pipeline.
3. Ensure that the socio-economic status of a child's family does not dictate her outcomes.
4. Develop and support teachers who love their jobs, and have a public that loves and supports its teachers.
5. Foster a generation of children and youth who feel happy and excited to go to school because they are finding a purpose and a place in our educational system.
6. Build and support schools that are deliberately developmental organizations rather than tools to replicate the status quo.
7. Realign all resources and policy decisions to support the learning and development of all children, youth, and adults.

Education Research for the Next Generation: Recommendations for a New Paradigm

Each spring, education researchers from around the world convene at the annual meeting of the American Education Research Association. In 2017, over 10,000 authors presented their work in more than 2,500 separate sessions spanning six days. Similar research convenings bring together members of the Society for Research in Educational Effectiveness (SREE), the American Psychological Association (APA), the Society for Research on Adolescence (SRA), and dozens of other professional research associations, all addressing questions central to learning and development. Collectively, year after year, thoughtful, dedicated, hard-working education researchers 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, including knowledge directly relevant to the social, emotional, and academic development of children and youth.

Meanwhile in schools around the country, dedicated teachers and leaders struggle to make sense of the latest fads and decipher new mandated programs, as they work to address the diverse learning needs and gifts of their students. Elsewhere, in central offices, impassioned district administrators attempt to improve or transform whole education systems, looking for evidence-based practices and solid research to inform their efforts. All of these education professionals are bombarded with a seemingly unending supply of possible “fixes” to their problems, yet too often they feel like they are shooting in the dark amid confusing or contradictory claims and information.

And through this all, schools and classrooms seem largely impervious to change, despite the glaring realization across the country that a 19th century approach to education is wholly inadequate to prepare children and youth for meaningful participation in the 21st century. What is wrong with this picture? As we think about a Research Agenda for the Next Generation of social, emotional, and academic development, we must directly take on these two central challenges:

- **Researchers build knowledge, but knowledge and evidence do not reliably inform meaningful changes in school practice or design.**
- **Teachers, school leaders, and district administrators search for guidance, but cannot easily access the information they need in a form that actually helps.**

To this end, we recommend a New Research Paradigm for the Next Generation. This new paradigm would be distinguished by **how questions are prioritized, who constructs knowledge, how research is conducted, and how knowledge is shared**. Key features of such a paradigm are sketched briefly below. 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 which is disseminated to other

academics through traditional research journals. **What we argue for here is to carve out a significant space for innovation and a committed investment in training a next generation of education researchers who can operate productively in this new paradigm.**

How Questions are Prioritized

Traditional research focuses on population-level relationships and generalizable findings, but educators in schools want to know, “What matters for *my* kids?” For research to be useful to teachers, school leaders, and district administrators, it must address the central problems within their individual contexts. A learning-focused agenda that directly responds to vital problems of practice might take up such questions as:

- How do schools create cultures of learning and healthy social-emotional functioning among adults?
- What predictive elements are essential to have in place (e.g., mission/vision, hiring philosophy, discipline plan, norms) before implementing an initiative for integrating social, emotional, and cognitive development in my middle school?
- With a limited school budget, 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 I want to better support the social, emotional, and cognitive development of my elementary students?
- How do I maintain a culture of high academic expectations when so many of the adolescents in my high school are dealing with significant trauma?

For any given area of focus, researchers should ask: What are the relevant bodies of knowledge that should inform this question? What factors impede progress in this area in practice? Once major barriers are identified, ask: Will the research questions we are pursuing address these barriers?

Ask questions that reflect the integrated nature of learning by attending to social, emotional, and cognitive development and processes alongside academic growth

Who Constructs Knowledge / How Research is Conducted

Research-practice collaborative projects would borrow heavily from both Design-Based Research (DBR) and Action Research principles and methodologies. To take on questions of immediate concern to practitioners, a research paradigm for the next generation of social, emotional, and academic development engages researchers and practitioners in *iterative, situated, collaborative, mixed-methods projects*. An ideal project team would be *vertical, multidisciplinary, and diverse*.

- *Vertical*: Includes practitioners from all relevant levels of practice, given the problem (e.g., teacher, school leader, district administrator)
- *Multidisciplinary*: Includes researchers with varied kinds of expertise relevant to the problem (e.g., adolescent development, adult learning, culturally-responsive practice, achievement motivation, systems change)

- *Diverse*: At least one team member should reflect the relevant population(s) being studied (e.g., English language learners, LGBTQ students, African American males). If this is not feasible, create intentional structures and processes to regularly seek input from the relevant groups on question formation, study design, data collection, interpretation of findings, and dissemination of results
- *Iterative, situated, collaborative, mixed-methods* projects:
 - o Focus on an agreed-upon problem of practice
 - o Create a “practical theory of change” of how to address the problem, drawing on collective knowledge from research and practice wisdom from the field
 - o Design a small test of change (small scale, easy to implement) to apply this knowledge to the problem
 - o Anticipate what will be different if the test works, and identify measures to detect change
 - o Implement the test, paying attention to not only results but process (qualitative and quantitative data collection)
 - o Learn from the data, revise the test, and try again – and then again... until practitioners feel they have found an adequate resolution to their problem
- Practitioners develop a deeper understanding of the research knowledge base through practical application, receive support and guidance in implementing solutions to a pressing problem
- Researchers build knowledge of what works, when, for whom, and under what circumstances – beginning to unpack the question of *why* – and glean what they hypothesize to be more generalizable principles from the local test (to be further tested in other settings)
- A process for building research-practitioners and practice-researchers with expertise engaging with one another in this new paradigm of research

How Knowledge is Shared (How Findings are Disseminated)

Traditional research publications are designed for an academic audience with substantive expertise in a topic, who can readily situate the results from a new study within the larger body of evidence. Practitioners don’t come with a deep background understanding – nor do they have the time to develop one – and cannot then make meaning of the results of individual studies in the way a researcher might. Rather than summaries of individual studies, what teachers, school leaders, and district administrators need are *problem-focused translational products* that summarize the evidence *across studies and across disciplines* in a way that both *builds their capacity* in understanding a phenomenon and *enables them to take informed action* in the immediate term. Funders and other key actors in the education sector can support the creation of structures and processes for developing these translational products and building avenues for easy access for practitioners. Some potential examples include:

- Fund multidisciplinary teams of researchers to create translational research briefs (short, lots of graphics, practice-focused) that distill key findings or principles that should inform

practice efforts around a particular topic (e.g., disciplinary practices, effective math strategies for middle school) with a grounding in evidence on social, emotional, and academic development. Create opportunities for researchers to describe what we know in ways that will be directly useful to classroom teachers, school leaders, district administrators, and state policymakers.

- Create a clearinghouse of what people are learning across collaborative research projects: reduce redundancy, make transparent, and build incrementally. What rises to the level of “We know this to be true” (e.g., what might we add to the CDS Consensus Statement of Evidence on How We Learn)?
- Incentivize researchers in colleges and universities to serve on small, sustained teams to work with teacher preparation programs in their own institutions, both to inform the design and improvement of such programs to reflect key principles of social, emotional, and academic learning, and to use them as sites to conduct collaborative research projects on teacher preparation with program staff
- Incentivize researchers in state colleges and universities to serve on advisory teams (on either an ongoing or ad hoc basis) to provide consultation to State Education Agencies (SEAs) or Local Education Agencies (LEAs) as they develop new initiatives to support social, emotional, and academic learning
- Create a new practice-focused education research journal that would include both:
 - o Translational summaries of key evidence (across studies and across disciplines) to inform particular problems of practice
 - o Research and practice results of collaborative projects, with articles formatted to build teacher and school leader capacity to act in their own context, in line with the best research evidence

The Research Paradigm for the Next Generation provides new opportunities for researchers to engage in collaborative research-practice efforts that not only build generalizable knowledge about social, emotional, and academic development, but change facts on the ground in real school for real kids.

To support this agenda, the broader education infrastructure (funders, research organizations, policymakers) can:

- o Develop structures for providing substantive expertise to education practitioners
- o Fund the creation and dissemination of translational products to inform social, emotional, and academic efforts in schools and districts
- o Provide research funding and incentives for researchers and practitioners at every level of the system to participate in vertical, collaborative, multidisciplinary research-practice teams to work on key questions of practice.
- o Invest in both the near term and the long haul: A comprehensive research agenda includes a portfolio of both quick turnaround projects and sustainable funding

- commitments for large-scale longitudinal studies to deepen our collective knowledge base on social, emotional, and cognitive development from early childhood through young adulthood, as well as the inter-generational aspects of such development (parent-child, teacher-student).
- Develop structures for researchers to provide substantive expertise to major curriculum developers and intermediary school support organizations to embed principles of social, emotional, and academic development in their work and products
 - Fund training opportunities for graduate students and early career scholars to learn how to do practice-focused, collaborative research that supports holistic student development
 - Fund projects that include money to schools and districts to enable practitioners to participate meaningfully in research endeavors over time at their school sites
 - Fund projects that develop practical measures of social, emotional, and academic functioning at both the individual and setting level for use in schools and districts as a critical component of research-practice collaborative projects