The Evidence Base for How We Learn

Supporting Students' Social, Emotional, and Academic Development

THE ASPEN INSTITUTE

NATIONAL COMMISSION
ON SOCIAL, EMOTIONAL, &
ACADEMIC DEVELOPMENT

FOREWORD

On the pages that follow, a broad alliance of leading scientists and scholars speaks with a unified voice about the urgency of integrating social, emotional, and academic dimensions of learning to improve student outcomes.

Under the aegis of the National Commission on Social, Emotional, and Academic Development, the 28-member Council of Distinguished Scientists actively collaborated on and unanimously endorses *The Evidence Base for How We Learn: Supporting Students' Social, Emotional, and Academic Development.* These consensus statements of evidence—drawing from brain science, medicine, economics, psychology, and education research—unite the country's leading scholars of learning in calling for the full integration of social and emotional learning with academic instruction.

The Consensus Statements of Evidence affirm and explain that social, emotional, and cognitive domains are interconnected in the learning process. This powerful consensus presents a compelling case for policymakers and educators to confidently move forward in addressing social and emotional dimensions of learning as part and parcel of achieving excellent academic outcomes in K-12 education.

The consensus statements and the research behind them are summarized in this brief, written by Stephanie M. Jones and Jennifer Kahn with the active participation of the entire Council of Distinguished Scientists.

The Aspen Institute is grateful to the scientists who came together to align their broad expertise in the public interest. Without their thoughtful contributions, dedicated efforts, and earnest deliberations, this step forward on behalf of our nation's students and schools would not be possible.

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THE OPPORTUNITY

Compelling research demonstrates what parents have always known—the success of young people in school and beyond is inextricably linked to healthy social and emotional development. Students who have a sense of belonging and purpose, who can work well with classmates and peers to solve problems, who can plan and set goals, and who can persevere through challenges—in addition to being literate, numerate, and versed in scientific concepts and ideas—are more likely to maximize their opportunities and reach their full potential. Educators, too, understand the benefits of educating the whole child, and have been calling for more support and fewer barriers in making this vision a reality. Similarly, employers recognize that social and emotional development, along with content knowledge, is crucial to preparing the future workforce with the life skills employers increasingly need and value.[i]

Given the substantial amount of time children spend in them, schools are an important and powerful influence, for good or ill, on children's development in all areas. They are a critical context in which to intentionally and productively cultivate social and emotional development. While many schools and districts are pursuing this work, their success so far has been impeded by education policies—and practices in some schools—that are predicated on a narrow vision of student success. Fortunately, the federal Every Student Succeeds Act, as well as growing efforts at the state and local levels to make social and emotional development a priority, are beginning to change the landscape. This convergence of advances in research, support from the education and business communities, and policy momentum creates a rare window of opportunity.

LEARNING IS SOCIAL AND EMOTIONAL

Decades of research in human development, cognitive and behavioral neuroscience, and educational practice and policy, as well as other fields, have illuminated that major domains of human development—social, emotional, cognitive, linguistic, academic—are deeply intertwined in the brain and in behavior. All are central to learning. Strengths or weaknesses in one area foster or impede development in others; each carries aspects of the other. For example, social development has critical cognitive elements that govern the processing of information from the social world and drive the attributions that are made. Cognition and emotion work in tandem; a core skill like self-control includes a cognitive-inhibition component that is easier or harder to deploy depending on the emotions of the individual and the situation.

In this brief, we recognize the deep connections among these areas and the importance of each one, but we focus in particular on the body of evidence that highlights a set of skills and

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competencies, primarily social and emotional, that are often left out of conversations about academic learning. What we refer to in this document as social and emotional learning and development encompasses cognitive, social, and emotional processes, skills, and competencies. Not only do these important skills facilitate academic learning, but we know that the quality and depth of student learning is enhanced when students have opportunities to interact with others and make meaningful connections to subject material. Promoting social and emotional development includes enhancing the skills that students and adults in schools and in other settings possess and deploy, and depends on features of the educational setting itself, including its culture and climate.

A challenge here is that public debates about social and emotional development suffer from the same issue that plagues many education concepts: Not everyone can quite agree on what it is. To some, social and emotional development involves a set of tools for learning, while others see it as a way of promoting resilience in the face of both normative and traumatic stresses. Others see it as a morality and character-building exercise, and still others focus on the importance of neurocognitive skills. This lack of consistency doesn't mean that social and emotional competence is "soft," immeasurable, irrelevant, or faddish. It means that social and emotional development is multi-faceted and is integral to academics—to how school happens, and to how learning takes place.

As noted above, social and emotional development comprises specific skills and competencies that students need in order to set goals, manage behavior, build relationships, and process and remember information. Moreover, it is fundamentally tied to characteristics of settings that can be intentionally structured to nurture these skills and competencies. Looking across a variety of disciplines, organizing systems, and correlational and evaluation research, and

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reflecting the intertwined nature of development described above, there are at least a dozen specific social and emotional skills that are clearly linked to school and life success[ii] and are relevant for both students and the adults who teach and care for them.[iii]

These skills can be grouped into three interconnected domains: (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 others' 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.

Drawing on evidence from a range of disciplines and perspectives, it is clear that social and emotional skills and competencies develop in a complex system of contexts, interactions, and relationships.[iv] Therefore, it is important for organizations to take a systems approach

to promoting development in these areas—addressing adult skills and beliefs; organizational culture, climate, and norms; and routines and structures that guide basic interactions and instruction. As described in greater detail below, such approaches are most effective when designed to match the needs and contexts of specific organizations and communities.

NATIONAL COMMISSION'S COUNCIL OF DISTINGUISHED SCIENTISTS

Seizing on momentum from a shift in policy, advances in research, and growing public support for a well-rounded education, and with the view that it is critical to ground educational policy and practice in rigorous developmental science, the Aspen Institute's National Commission on Social, Emotional, and Academic Development is advancing a new vision for what constitutes success in schools. This vision calls for the full integration of social, emotional, and academic development to ensure every student is prepared to thrive in school and in life. By uniting a broad alliance of leaders to speak with a unified voice about the urgency of integrating social and emotional development into the fabric of K-12 education, the Commission is uniquely positioned to highlight critical scholarship at a time when there has been a proliferation of interest.

To inform this critical element of its work, the Commission has convened the Council of Distinguished Scientists, an extraordinary group of scientists, researchers, and academics, to highlight and build on the powerful evidence that establishes the foundational nature of social and emotional competencies as essential to all learning. By uniting research leaders across

disparate but kindred fields—including character and ethical education, deeper learning, emotional intelligence, health and mental-health promotion, primary prevention, neuroscience, social and emotional learning, adversity science, mindsets, mindfulness, prosocial education, positive psychology, resilience, child-centered education, learning science, positive youth development, civic education, school climate and education of the whole child—the Council developed a consensus view on what research says about integrating social, emotional, and academic development.

The Consensus Statements of Evidence are grounded in scientific research that moves the nation beyond the debate as to whether schools should attend to students' social and emotional development, to how we can integrate social, emotional, and academic development into the mission and daily work of all schools. The Consensus Statements affirm the interconnectedness of the social, emotional, and cognitive domains as the way in which all students learn. As a consensus view, developed and agreed upon by leading researchers across the country, these statements make a compelling case for policymakers and educators to confidently move forward to support social and emotional development in a manner integrated with academic instruction in K-12 education. Critically for the Commission, these Consensus Statements elevate and celebrate important research that establishes an array of positive student and societal outcomes. They provide an evidence base that can align the field and that the research community can build upon. While each of these statements is true, they are meant to be considered as a totality.

CONSENSUS STATEMENTS OF EVIDENCE

SOCIAL, EMOTIONAL, AND ACADEMIC DEVELOPMENT MATTERS

Social, emotional and cognitive competencies develop throughout our lives and are essential to success in our schools, workplaces, homes, and communities and allow individuals to contribute meaningfully to society.

There is a substantial and rigorous body of evidence showing that students learn more and classrooms are more effective when children and adolescents have the skills and competencies to manage emotions, focus their attention, successfully navigate relationships with peers and adults, persist in the face of difficulty, learn from and apply academic content, and problem solve.[v] Interest in this area is high, and with good reason: There is now a strong body of evidence from large-scale experimental studies showing that high-quality preschool and school-based programming focused on social and emotional development make a positive difference for children's academic achievement and behavior. Moreover, during the past thirty years, demand in the labor market for individuals who possess this body of skills has increased.[vi]

To date we've learned that, in addition to broad improvements in social, behavioral, and mental health outcomes,[vii] programming in social and emotional learning across the school years drives increases in executive functioning, self-efficacy, persistence, prosocial behavior, grades, and scores on standardized tests.[viii] Children with stronger social and emotional competencies are also more likely to enter and graduate from college, succeed in their careers, have positive work and family relationships, better mental and physical health, reduced criminal behavior, and to become engaged citizens.[ix]

Social, emotional, and cognitive capabilities are fundamentally intertwined—they are interdependent in their development, experience, and use.

As noted above, research in human development establishes that social, emotional, and cognitive development are deeply intertwined and together are integral to academic learning and success.[x] Indeed, many social, emotional, and cognitive capacities are processed in the same parts of the brain,[xi] and this plays out in behavior when, for example, fear impedes our ability to process information. Studies of effective early childhood and school environments[xii] confirm that academic skills in the first years of schooling are entwined with the ability to regulate emotions and behavior and to engage in positive social interactions with peers and adults, and that academic behaviors in the later years (e.g., attendance) are closely tied to students' social, emotional, and behavioral functioning.[xiii] We also know that classroom instruction and academic activities that connect rigorous cognitive challenges with social interaction or that spark students' emotions result in deeper, longer-term learning.[xiv] In practice, efforts that approach these domains from a lens

of integration—addressing social, emotional, and academic development together—are likely to be the most effective and sustainable.[xv]

Engaging in effective social and emotional learning-informed programs and practices can improve teacher effectiveness and well-being.

In addition to individual student outcomes, attention to social and emotional development 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.[xvi] Indeed, not only is there compelling evidence that a focus on social and emotional skills is central to effective classroom management,[xvii] there is promising evidence that discipline policies in schools that adopt and act on core principles of social and emotional learning can shift race and gender disparities in the application of punitive discipline practices.[xviii] Moreover, there is now a small, but growing, body of evidence suggesting that interventions addressing teacher-specific social and emotional competencies result in improvements in a variety of indicators of teacher well-being including reductions in stress and burnout,[xix] which can reduce rates of teacher and administrator turnover.[xx] Teachers also report greater job satisfaction when their students are

Evidence shows that high-quality programming focused on SEL makes a positive difference for children's academic achievement and behavior.

more engaged and successful, and we know that student motivation and engagement is closely linked to experiences with instructional content and approaches that reflect students' social and emotional worlds.[xxi]

SOCIAL AND EMOTIONAL SKILLS ARE MALLEABLE

Social, emotional, and cognitive competencies can be taught and developed throughout childhood, adolescence, and beyond.

Social, emotional, and cognitive skills are not predetermined by one's genetic blueprint. Rather, our genes interact with experience so that these skills emerge, grow, and change over time, beginning in the earliest years and continuing throughout childhood and adolescence. Indeed, there is some evidence to suggest that social and emotional learning skills are malleable over long periods of development, whereas some core cognitive skills become less so as children get older.[xxii] Although more research is needed in this area, two important developmental principles are at play. First, some skills act as building blocks, serving as a foundation for more complex skills that emerge later in life. For example, regulating and managing one's emotions is fundamental to resolving complex social conflicts, and identifying basic emotions in oneself is essential to being able to regulate them effectively. This suggests that children must develop certain basic social, emotional, and cognitive competencies before they can master others.

Second, emerging research suggests there is a developmental progression regarding when some skills are more salient than others, enabling children and youth to meet the demands of a particular developmental stage and/or setting, or successfully navigate a major transition from one developmental context to another (e.g., from

elementary to middle school or from high school to postsecondary education).[xxiii] In other words, as the environments in which children learn, grow, and play change, so do the social, emotional, and cognitive demands placed on them. This suggests that certain social, emotional, and cognitive skills should be cultivated or taught before others, and within specific grades or age ranges, and that instruction in these domains should be developmentally sequenced and age-appropriate.[xxiv] Documenting the typical developmental progression of these skills, and critically, their variability between individuals, cultures, and contexts, represents a major research opportunity.

Contexts and experiences can be shaped in ways that positively affect children's social and emotional learning and their academic and life outcomes, and there are programs and practices that have been proven to be effective at improving social and emotional development.

Social and emotional skills can be intentionally cultivated with high-quality practices, programs, and interventions[xxv] in both school and out-of-school settings.[xxvi] For example, in their seminal review of more than 200 school-based, universal social and emotional learning programs spanning grades K-12, Durlak and colleagues (2011) demonstrated that students who participated in evidence-based social and emotional learning (SEL) programs showed significant improvements in social and emotional learning skills, behavior, attitudes, and academic performance, as well as reduced emotional distress and conduct problems.[xxvii] Results from this study also indicated that programs were most effective when they employed evidence-based skills-training practices. Specifically, these programs conformed to the acronym SAFE, meaning they: included sequenced activities to teach skills, actively engaged students in learning skills, focused time on SEL skill development, and explicitly targeted SEL skills.[xxviii] A follow-up study revealed that participants continued to demonstrate positive

benefits for an average of 3.75 years following participation, indicating the long-term benefits of SEL interventions.[xxix] Furthermore, interventions were beneficial across populations, regardless of race/ethnic or socio-economic background.[xxx] Other approaches to intervention that emphasize one aspect or domain of social, emotional, and cognitive skills—those focused on executive functions, mindfulness, or growth mindsets, for example—have also been shown through rigorous evaluations to be effective.[xxxi]

SCHOOLS PLAY A CENTRAL ROLE IN SOCIAL, EMOTIONAL, AND ACADEMIC DEVELOPMENT

Schools can have a significant influence on social, emotional, and academic development. The wider community (families, community institutions, etc.) must be engaged to enhance the strength, depth, and pace of acquisition of these competencies.

Given the substantial amount of time children spend in school, interacting with other students and adults, early childhood educational settings and schools are a primary and critical context for intentionally and rigorously building and cultivating social, emotional, and academic skills. At the same time, families and other community institutions play an essential role in building and supporting these skills.[xxxii] Including families and out-of-school-time organizations in efforts to ensure healthy social, emotional, and cognitive development allows for learning and reinforcement to continue across contexts.[xxxiii]

Social, emotional, and academic development is an essential part of pre-K-12 education that can transform schools into places that foster academic excellence, collaboration and communication, creativity and innovation, empathy and respect, civic engagement, and other skills and dispositions needed for success in the 21st Century.

Integrating a focus on social and emotional development into the structures and practices of schools and schooling is a path to creating safe, supportive school environments that are conducive to learning. One of the most enduring, repeated, and substantial effects of SEL and related interventions (e.g., those focused on executive function or self-regulation, for example) are change in the culture and climate of classrooms, including organizational, instructional, and behavior management practices.[xxxiv] It is clear that such interventions not only shape individual outcomes, but also broader, setting-level outcomes tied to a range of important school experiences.[xxxv]

Students with strong social and emotional skills are also more likely to initiate and sustain positive relationships with peers and adults, participate in classroom activities, and engage in learning.[xxxvi] In addition, classrooms characterized by warm and engaging teacher-student relationships promote deeper learning among students: Children who feel comfortable with their teachers and peers are more willing to grapple with challenging material and persist at difficult learning tasks.[xxxvii] Curriculum and instructional practices that deliberately integrate or interweave academic content with social and emotional themes and/or skills are likely to be the most sustainable and effective. There are a growing number of examples of such practices in the field.[xxxviii]

Effective implementation is necessary to improve outcomes and for all children to benefit.

A growing body of research highlights the importance of effective implementation of social and emotional learning and related interventions and strategies.[xxxix] Evidence indicates that high-quality implementation is positively associated with better student outcomes.[xl] Schools and other settings that merely give "lip service" to social and emotional learning, but do not have clear and consistent programs or strategies, will not show commensurate outcomes for students. Monitoring implementation is essential for program impact

and for providing valuable guidance in terms of continuous program improvement.[xli] A focus on implementation advances research, practice, and educational policy because it can lead to better decision making and better services for students.[xlii]

Conditions for effective implementation are known. For example, social and emotional learning should be developmentally and culturally aligned to the needs of students and integrated across settings, including the school, home, and community.[xliii] Students are more likely to benefit when social and emotional learning are embedded in everyday interactions and school culture, as reflected by collaborative efforts among adults and attention to places beyond the classroom, such as hallways and bathrooms.[xliv] For skill-building in these areas to permeate across settings, students need continuous, consistent opportunities to build and practice these skills, which means that adults must agree on consistent practices across classrooms and other school contexts.[xlv]

For social, emotional, and academic development to thrive in schools, teachers and administrators need training and support to understand and model these skills, behaviors, knowledge, and beliefs.

Students are more likely to benefit from social and emotional learning when staff receive training, and the program or strategy is implemented well and embedded in everyday teaching and learning. [xlvi] However, today's teachers typically receive little training (either pre-service or in-service) on how to promote these skills, or deal with peer conflict or social and emotional development overall.[xlvii] As a result, teachers report limited confidence in their ability to respond to student behavioral needs and, in turn, to support students' social and emotional development.[xlviii] When teachers receive training in specific evidence-based programs or strategies that affect teaching and learning in the classroom, they feel better equipped to propose and implement positive, active classroom management

strategies that deter students' aggressive behaviors and promote a positive classroom learning climate. [xlix] In addition, teachers who have knowledge about child and adolescent development are better able to design and carry out learning experiences in ways that support students' social, emotional, and academic competencies, and enhance student outcomes.[l] Ultimately, training should be embedded in educators' pre-service and in-service experiences, and administrative and supervisory support should be integrated in ongoing ways.

In addition to training and support dedicated to developing students' social and emotional skills, teachers need support in building their own skills in these areas. It is difficult for adults to help students build these skills if they themselves do not possess them. Research indicates that teachers with stronger social and emotional skills have more positive relationships with students, engage in more effective classroom management, and implement their students' social and emotional programming more effectively.[li] Critically, not only teachers, but district administrators, principals and other school staff need professional training and support in social and emotional development and related practices. [lii] Some evidence suggests that when principals and teachers who attempt to implement strategies and practices tied to social and emotional learning are well supported by their district leadership, they have better outcomes. Indeed, school and district leaders are a linchpin to high-quality implementation.

A benefit-cost analysis of SEL interventions revealed a positive return on investment averaging $11 in long-term benefits for every $1 invested.

FOCUSING ON SOCIAL AND EMOTIONAL DEVELOPMENT IS WORTH IT

Supporting social, emotional, and academic development is a wise use of public resources, because there can be long-term social and economic benefits to society when schools implement and embed evidence-based programs that promote social and emotional as well as cognitive development.

As described above, the integration of social, emotional, and academic development is imperative to effective learning environments and for adequately preparing children and youth for success in today's world. It is becoming even clearer that this integrated set of competencies is essential for the increasingly complex, global, and rapidly changing environment in which our students will function as adults. The impact of development in these areas reaches far beyond individual or school success. Making social and emotional development a priority has significant benefits for the well-being of our society, including implications for public health and economic growth.

Relatively low-cost SEL and related interventions can deliver substantial returns on investment. For example, a benefit-cost analysis of prominent SEL interventions revealed a positive return on investment averaging a yield of $11 in long-term benefits over a range of outcomes for every $1 invested.[liii] Evidence from national and international settings indicates that individuals with higher social and emotional competencies tend to have higher labor market earnings.[liv] Research and theory also suggest that these skills are likely to lead to gains in labor productivity, which include increased long-term employment and taxable earnings.[lv] Similarly, reductions in violence, drug use, delinquent behavior, and mental health problems—as a result of stronger social and emotional skills and competencies—are likely to

lead to decreased need for government services, and ultimately, less expenditure of public money.[lvi]

Building social and emotional skills and competencies also has important value from a public-health perspective. Universal school-based programs focused on these skills have the capacity to influence short- and long-term physical and mental health outcomes for all children. By facilitating the development of skills such as how to manage emotions, such interventions can serve as important protective factors and change the way individuals adapt to their environment and respond to stress.[lvii] A longitudinal study following more than 1,000 children found that early self-control predicted a range of long-term outcomes, including better physical health and personal finances, and lower substance dependence and criminal activity.[lviii] Likewise, the inability to cope effectively with stress or regulate one's emotions is associated with numerous diseases that influence the physiological response system.[lix] This is particularly relevant for children exposed to chronic stress often associated with poverty, violence, and substance abuse, conditions that have long-lasting consequences for learning, behavior, and general physical and mental well-being.[lx]

All students, regardless of their background, benefit from positive social and emotional development. At the same time, building, nurturing, and integrating social, emotional, and academic development in pre-K-12 can be a part of achieving a more equitable society.

Taken together, it is clear that supporting positive social, emotional, and academic development is highly valuable for the success and well-being of individuals, schools, and society at large. Importantly, this work has the potential to influence outcomes for everyone, driving change towards a more equitable society overall. Interventions designed to build social and emotional skills have been shown to be effective for all children and youth, regardless of geographical setting (e.g., urban, suburban, rural)

or socio-demographic background.[lxi] We do know that children exposed to adversity, trauma, and stress are particularly susceptible to challenges in these areas,[lxii] and that those with different geographic, socioeconomic, gender, and racial/ethnic backgrounds can experience the same environment differently. Importantly, this work is especially relevant for supporting low-income or at-risk students, providing them with a set of skills that can buffer exposure to adverse experiences or difficulty in school.[lxiii] These issues are very complex, and supporting children and adults to cope with or manage systemic and enduring inequities is not a sustainable pathway to a more equitable society. However, focusing on social, emotional, and academic development can contribute to an important shift toward a society where all children and youth can learn and succeed.

CONCLUSION

Integrating social and emotional development with academic instruction is foundational to the success of our young people, and therefore to the success of our education system and society at large. All children deserve the opportunity to learn the skills they need to succeed as individuals and as contributing, engaged citizens. With these guiding principles and the collective expertise and influence of the National Commission's Council of Distinguished Scientists, we are well positioned to bring about meaningful and sustainable change, placing the integration of social, emotional, and academic development at the forefront of education practice and policy.

References

Aber, J. L., Brown, J. L., & Jones, S. M. (2003). Developmental trajectories toward violence in middle childhood: Course, demographic differences, and response to school-based intervention. *Developmental Psychology, 39*(2), 324.

Aber, J. L., & Jones, S. M. (1997). Indicators of positive development in early childhood: Improving concepts and measures. In Hauser, R. M., Brown, B. V., & Prosser, W. R. (Eds.), *Indicators of children's well-being* (pp. 395-408). New York: Russell Sage Foundation.

Adolphs, R. (2003). Cognitive neuroscience of human social behaviour. *Nature reviews. Neuroscience, 4*(3), 165.

Albright, M. I., & Weissberg, R. P. (2010). *School-family partnerships to promote social and emotional learning.* Routledge.

Alvarez, H. K. (2007). The impact of teacher preparation on responses to student aggression in the classroom. *Teaching and Teacher Education, 23*(7), 1113-1126.

Barnett, W. S., Jung, K., Yarosz, D. J., Thomas, J., Hornbeck, A., Stechuk, R., & Burns, S. (2008). Educational effects of the Tools of the Mind curriculum: A randomized trial. *Early childhood research quarterly, 23*(3), 299-313.

Belfield, C., Bowden, A. B., Klapp, A., Levin, H., Shand, R., & Zander, S. (2015). The economic value of social and emotional learning. *Journal of Benefit-Cost Analysis, 6*(3), 508-544.

Bernier, A., Carlson, S. M., & Whipple, N. (2010). From external regulation to self-regulation: Early parenting precursors of young children's executive functioning. *Child Development, 81*(1), 326-339.

Bettencourt, A., Gross, D., & Ho, G. (2016). The Costly Consequences of Not Being Socially and Behaviorally Ready by Kindergarten: Associations with Grade Retention, Receipt of Academic Support Services, and Suspensions/Expulsions. *Baltimore Education Research Consortium.*

Bierman, K. L., Coie, J. D., Dodge, K. A., Greenberg, M. T., Lochman, J. E., McMahon, R. J., & Pinderhughes, E. (2010). The effects of a multiyear universal social–emotional learning program: The role of student and school characteristics. *Journal of Consulting and Clinical Psychology, 78*(2), 156.

Bierman, K. L., Domitrovich, C. E., Nix, R. L., Gest, S. D., Welsh, J. A., Greenberg, M. T., ... & Gill, S. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development, 79*(6), 1802-1817.

Blair, C., & Raver, C. C. (2014). Closing the achievement gap through modification of neurocognitive and neuroendocrine function: Results from a cluster randomized controlled trial of an innovative approach to the education of children in kindergarten. *PloS one, 9*(11), e112393.

Blair, C., & Razza, R. P. (2007). Relating effortful control, executive function, and false belief understanding to emerging math and literacy ability in kindergarten. *Child Development, 78*(2), 647-663.

Bouffard, S.M. (2017). Riding the turnover wave. *Usable Knowledge.* Retrieved from https://www.gse.harvard.edu/news/uk/17/08/riding-turnover-wave

Brackett, M. A. (2015). *The emotion revolution.* [PowerPoint slides].

Bridgeland, J., Bruce, M., & Hariharan, A. (2013). The missing piece: A national teacher survey on how social and emotional learning can empower children and transform schools. A report for CASEL. *Civic Enterprises.*

Brion-Meisels, G., & Jones, S. M. (2012). Learning about relationships. *Positive relationships* (pp. 55-72). Springer.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist, 32*(7), 513.

Brown, J. L., Jones, S. M., LaRusso, M. D., & Aber, J. L. (2010). Improving classroom quality: Teacher influences and experimental impacts of the 4Rs program. *Journal of Educational Psychology, 102*(1), 153.

Brunello, G., & Schlotter, M. (2011). Non-cognitive skills and personality traits: Labour market relevance and their development in education & training systems.

Buckner, J. C., Mezzacappa, E., & Beardslee, W. R. (2003). Characteristics of resilient youths living in poverty: The role of self-regulatory processes. *Development and Psychopathology, 15*(1), 139-162.

Buckner, J. C., Mezzacappa, E., & Beardslee, W. R. (2009). Self-regulation and its relations to adaptive functioning in low income youths. *American Journal of Orthopsychiatry, 79*(1), 19.

Bull, R., Espy, K. A., & Wiebe, S. A. (2008). Short-term memory, working memory, and executive functioning in preschoolers: Longitudinal predictors of mathematical achievement at age 7 years. *Developmental Neuropsychology, 33*(3), 205-228.

Capella, E., Blair, C., & Aber, L.A. (2016). *Outcomes beyond test scores, what is social-emotional learning?* Steinhardt White Paper.

Center on the Developing Child. (2011). *Building the brain's "air traffic control" system: How early experiences shape the development of executive function (working paper no. 11).*

Conduct Problems Prevention Research Group. (1999). Initial impact of the fast track prevention trial for conduct problems: II. classroom effects. *Journal of Consulting and Clinical Psychology, 67*(5), 648.

Conley, S.C. (2015). SEL in Higher Education. In Durlak, J.A., Domitrovich, C.E., Weissberg, R.P., Gullotta, T.P., & Comer, J. (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 197-212). New York, NY: Guilford Press.

Crean, H. F., & Johnson, D. B. (2013). Promoting alternative thinking strategies (PATHS) and elementary school aged children's aggression: Results from a cluster randomized trial. *American Journal of Community Psychology, 52*(1-2), 56-72.

Cunha, F., Heckman, J., & Schennach, S. (2010). Estimating the technology of cognitive and noncognitive skill formation. Econometrica, 78(3), 883–931. doi:10.3982/ECTA6551 Deming, D. J. (2015). The growing importance of social skills in the labor market. *The Quarterly Journal of Economics.*

Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development, 17*(1), 57-89.

DePaoli, J. L., Fox, J. H., Ingram, E. S., Maushard, M., Bridgeland, J. M., & Balfanz, R. (2015). Building a Grad Nation: Progress and Challenge in Ending the High School Dropout Epidemic. Annual Update 2015. *Civic Enterprises.*

Domitrovich, C. E., & Greenberg, M. T. (2000). The study of implementation: Current findings from effective programs that prevent mental disorders in school-aged children. *Journal of Educational and Psychological Consultation, 11*(2), 193-221.

Duckworth, A. L., & Seligman, M. E. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science, 16*(12), 939-944.

Durlak, J. A. (2015). What everyone should know about implementation. In Durlak, J.A., Domitrovich, C.E., Weissberg, R.P., Gullotta, T.P., & Comer, J. (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 395-405). New York, NY: Guilford Press.

Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology, 41*(3-4), 327-350.

Durlak, J. A., & Weissberg, R. P. (2007). The Impact of After-School Programs that Promote Personal and Social Skills. *Collaborative for academic, social, and emotional learning* (NJ1).

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432.

Dusenbury, L., Weissberg, R.P., & Meyers, D.C. (2016). Skills for life: How principals can promote social and emotional learning in schools. *Principal.* Retrieved from https://www.naesp.org/sites/default/files/Dusenberyetal_SO16.pdf

Eccles, J. S. (1999). The development of children ages 6 to 14. *The future of children*, 30-44.

Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C. M., Reuman, D., Flanagan, C., & Mac Iver, D. (1993). Development during adolescence: The impact of stage-environment fit on young adolescents' experiences in schools and in families. *American Psychologist, 48*(2), 90.

Elias, M. J. (1997). *Promoting social and emotional learning: Guidelines for educators.* Ascd.

Elias, M. J., Zins, J. E., Graczyk, P. A., & Weissberg, R. P. (2003). Implementation, sustainability, and scaling up of social-emotional and academic innovations in public schools. *School Psychology Review, 32*(3), 303-319.

Espy, K. A., McDiarmid, M. M., Cwik, M. F., Stalets, M. M., Hamby, A., & Senn, T. E. (2004). The contribution of executive functions to emergent mathematic skills in preschool children. *Developmental Neuropsychology, 26*(1), 465-486.

Evans, G. W., & Kim, P. (2013). Childhood poverty, chronic stress, self-regulation, and coping. *Child Development Perspectives, 7*(1), 43-48.

Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2012). *Teaching Adolescents to Become Learners: The Role of Noncognitive Factors in Shaping School Performance--A Critical Literature Review.* Consortium on Chicago School Research. Chicago, IL.

Garbacz, S. A., Swanger-Gagne, M. S., & Sheridan, S. M. (2015). The role of school-family partnership programs for promoting student social and emotional learning. In Durlak, J.A., Domitrovich, C.E., Weissberg, R.P., Gullotta, T.P., & Comer, J. (Eds.), *The handbook of social and emotional learning: Research to practice* (pp. 244-259). New York, NY: Guilford Press.

Greenberg, M. T., Domitrovich, C. E., Graczyk, P. A., & Zins, J. E. (2005). The study of implementation in school-based preventive interventions: Theory, research, and practice. *Promotion of Mental Health and Prevention of Mental and Behavioral Disorders 2005 Series V3.*

Greenberg, M. T., Domitrovich, C. E., Weissberg, R. P., & Durlak, J. A. (2017). Social and emotional learning as a public health approach to education. *The Future of Children, 27*(1), 13-32. Retrieved from http://www.jstor.org/stable/44219019

Greenberg, M.T., Katz, D.A., & Klein, L.C. (2015). The potential effects of SEL on biomarkers and health outcomes: A promissory note. In Durlak, J.A., Domitrovich, C.E., Weissberg, R.P., Gullotta, T.P., & Comer, J. (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 81-96). New York, NY: Guilford Press.

Gregory, A., & Fergus, E. (2017). Social and Emotional Learning and Equity in School Discipline. *The Future of Children*, 117-136.

Hagelskamp, C., Brackett, M. A., Rivers, S. E., & Salovey, P. (2013). Improving classroom quality with the ruler approach to social and emotional learning: Proximal and distal outcomes. *American Journal of Community Psychology, 51*(3-4), 530-543.

Hamre, B. K., & Pianta, R. C. (Eds.). (2006). *Student-teacher relationships.* Bethesda, MD: National Association of School Psychologists.

Heckman, J. J., Stixrud, J., & Urzua, S. (2006). The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior. Journal of Labor Economics, 24(3), 411–482. doi:10.1086/504455 Heckman, J. J., & Kautz, T. (2013). *Fostering and measuring skills: Interventions that improve character and cognition* (No. w19656). National Bureau of Economic Research.

Horner, R. H., Sugai, G., & Anderson, C. M. (2010). Examining the evidence base for school-wide positive behavior support. *Focus on Exceptional Children, 42*(8), 1.

Howse, R. B., Lange, G., Farran, D. C., & Boyles, C. D. (2003). Motivation and self-regulation as predictors of achievement in economically disadvantaged young children. *The Journal of Experimental Education, 71*(2), 151-174.

Hurd, N., & Deutsch, N. (2017). SEL-focused after-school programs. *The Future of Children, 27*(1), 95-115. Retrieved from http://www.jstor.org/stable/44219023

Immordino-Yang, M. H. (2011). Implications of affective and social neuroscience for educational theory. *Educational Philosophy and Theory, 43*(1), 98-103.

Immordino-Yang, M. H., & Damasio, A. (2007). We feel, therefore we learn: The relevance of affective and social neuroscience to education. Mind, brain, and education, 1(1), 3-10.

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79*(1), 491-525.

Jennings, P. A., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2011). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of two pilot studies. *The Journal of Classroom Interaction*, 37-48.

Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving classroom learning environments by Cultivating Awareness and Resilience in Education (CARE): Results of a randomized controlled trial. *School Psychology Quarterly, 28*(4), 374.

Johnson, H. & Weiner, R. (2017) This Time, With Feeling: Integrating Social and Emotional Development and College- and Career-Readiness Standards. New York: Aspen Institute.

Jones, D. J., Greenberg, M. T., & Crowley, M. (2015). The economic case for SEL. In Durlak, J.A., Domitrovich, C.E., Weissberg, R.P., Gullotta, T.P., & Comer, J. (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 97-113). New York, NY: Guilford Press.

Jones, S. M., Barnes, S. P., Bailey, R., & Doolittle, E. J. (2017). Promoting social and emotional competencies in elementary school. *The Future of Children, 27*(1), 49-72. Retrieved from http://www.jstor.org/stable/44219021

Jones, S. M., Bailey, R., & Jacob, R. (2014). Social-emotional learning is essential to classroom management. *Phi Delta Kappan, 96*(2), 19-24.

Jones, S.M., Brush, K., Bailey, R., Brion-Meisels, G., McIntyre, J., Kahn, J., Nelson, B., & Stickle, L. (2017). *Navigating social and emotional learning from the inside out; Looking inside and across 25 leading SEL programs: A practical resource for schools and OST providers (elementary school focus).* New York, NY: Wallace Foundation.

Jones, S. M., & Bouffard, S. M. (2012). Social and emotional learning in schools: From programs to strategies. Social Policy Report, 26 (4). *Society for Research in Child Development.*

Jones, S. M., Brown, J. L., Hoglund, W. L., & Aber, J. L. (2010). A school-randomized clinical trial of an integrated social–emotional learning and literacy intervention: Impacts after 1 school year. *Journal of Consulting and Clinical Psychology, 78*(6), 829.

Jones, S. M., Brown, J. L., & Lawrence Aber, J. (2011). Two-year impacts of a universal school-based social-emotional and literacy intervention: An experiment in translational developmental research. *Child Development, 82*(2), 533-554.

Jones, S. M., & Doolittle, E. J. (2017). Social and emotional learning: Introducing the issue. *The Future of Children, 27*(1), 3-11.

Jones, S. M., & Zigler, E. (2002). The Mozart effect: Not learning from history. *Journal of Applied Developmental Psychology, 23*(3), 355-372.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology, 102*(3), 741.

Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health, 74*(7), 262-273.

Kremenitzer, J. P. (2005). The emotionally intelligent early childhood educator: Self-reflective journaling. *Early Childhood Education Journal, 33*(1), 3-9.

LaRusso, M. D., Brown, J. L., Jones, S. M., & Aber, J. L. (2009). School context and microcontexts: The complexity of studying school settings.

Lopes, P. N., Mestre, J. M., Guil, R., Kremenitzer, J. P., & Salovey, P. (2012). The role of knowledge and skills for managing emotions in adaptation to school: Social behavior and misconduct in the classroom. *American Educational Research Journal, 49*(4), 710-742.

McClelland, M. M., Cameron, C. E., Connor, C. M., Farris, C. L., Jewkes, A. M., & Morrison, F. J. (2007). Links between behavioral regulation and preschoolers' literacy, vocabulary, and math skills. *Developmental Psychology, 43*(4), 947.

Merritt, E. G., Wanless, S. B., Rimm-Kaufman, S. E., Cameron, C., & Peugh, J. L. (2012). The contribution of teachers' emotional support to children's social behaviors and self-regulatory skills in first grade. *School Psychology Review, 41*(2), 141.

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., & Sears, M. R. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences, 108(7*), 2693-2698.

Morris, P., Lloyd, C. M., Millenky, M., Leacock, N., Raver, C. C., & Bangser, M. (2013). Using classroom management to improve preschoolers' social and emotional skills: Final impact and implementation findings from the foundations of learning demonstration in Newark and Chicago.

Nagaoka, J., Farrington, C. A., Ehrlich, S. B., & Heath, R. D. (2015). *Foundations for Young Adult Success: A Developmental Framework.* Concept Paper for Research and Practice. University of Chicago Consortium on Chicago School Research.

National Network of Business and Industry Associations. (2014). *Common Employability Skills. A Foundation for Success in the Workplace: The Skills All Employees Need, No Matter Where They Work.*

National Association of Colleges and Employers. (2016). *Job Outlook 2016 Survey.*

Noble, K. G., Norman, M. F., & Farah, M. J. (2005). Neurocognitive correlates of socioeconomic status in kindergarten children. *Developmental Science, 8*(1), 74-87.

Okonofua, J. A., Paunesku, D., & Walton, G. M. (2016). Brief intervention to encourage empathic discipline cuts suspension rates in half among adolescents. Proceedings of the National Academy of Sciences, 113(19), 5221-5226.

Okonofua, J. A., Walton, G. M., & Eberhardt, J. L. (2016). A vicious cycle: A social–psychological account of extreme racial disparities in school discipline. *Perspectives on Psychological Science, 11*(3), 381-398.

Osher, D., Kidron, Y., Brackett, M., Dymnicki, A., Jones, S., & Weissberg, R. P. (2016). Advancing the science and practice of social and emotional learning: Looking back and moving forward. *Review of Research in Education, 40*(1), 644-681.

Patti, J., Holzer, A. A., Brackett, M. A., & Stern, R. (2015). Twenty-first-century professional development for educators: a coaching approach grounded in emotional intelligence. *Coaching: An International Journal of Theory, Research and Practice, 8*(2), 96-119.

Patti, J., Senge, P., Madrazo, C., & Stern, R.S. (2015). Developing socially, emotionally, and cognitively competent school leaders and learning communities. In Durlak, J.A., Domitrovich, C.E., Weissberg, R.P., Gullotta, T.P., & Comer, J. (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 395-405). New York, NY: Guilford Press.

Paunesku, D., Yeager, D. S., Romero, C., & Walton, G. (2012). A brief growth mindset intervention improves academic outcomes of community college students enrolled in developmental mathematics courses. Unpublished manuscript. Stanford University, Stanford, CA.

Ponitz, C. E. C., McClelland, M. M., Jewkes, A. M., Connor, C. M., Farris, C. L., & Morrison, F. J. (2008). Touch your toes! Developing a direct measure of behavioral regulation in early childhood. *Early Childhood Research Quarterly, 23*(2), 141-158.

Raver, C. C., Jones, S. M., Li-Grining, C. P., Metzger, M., Champion, K. M., & Sardin, L. (2008). Improving preschool classroom processes: Preliminary findings from a randomized trial implemented in Head Start settings. *Early Childhood Research Quarterly, 23*(1), 10-26.

Raver, C. C., Jones, S. M., Li-Grining, C., Zhai, F., Bub, K., & Pressler, E. (2011). CSRP's impact on low‐income preschoolers' preacademic skills: self-regulation as a mediating mechanism. *Child Development, 82*(1), 362-378.

Raver, C. C., Jones, S. M., Li-Grining, C., Zhai, F., Metzger, M. W., & Solomon, B. (2009). Targeting children's behavior problems in preschool classrooms: a cluster-randomized controlled trial. *Journal of Consulting and Clinical Psychology, 77*(2), 302.

Raver, C. C., Blair, C., & Willoughby, M. (2013). Poverty as a predictor of 4-year-olds' executive function: New perspectives on models of differential susceptibility. *Developmental Psychology, 49*(2), 292.

Reinke, W. M., Stormont, M., Herman, K. C., Puri, R., & Goel, N. (2011). Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. *School Psychology Quarterly, 26*(1), 1.

Rimm-Kaufman, S. E., & Hamre, B. K. (2010). The role of psychological and developmental science in efforts to improve teacher quality. *Teachers College Record, 112*(12), 2988-3023.

Rivers, S. E., Brackett, M. A., Reyes, M. R., Elbertson, N. A., & Salovey, P. (2013). Improving the social and emotional climate of classrooms: A clustered randomized controlled trial testing the RULER approach. *Prevention Science, 14*(1), 77-87.

Robers, S., Kemp, J., & Truman, J. (2013). Indicators of school crime and safety: 2012. NCES 2013-036/NCJ 241446. *National Center for Education Statistics.*

Roeser, R. W., Schonert-Reichl, K. A., Jha, A., Cullen, M., Wallace, L., Wilensky, R., & Harrison, J. (2013). Mindfulness training and reductions in teacher stress and burnout: Results from two randomized, waitlist-control field trials. *Journal of Educational Psychology, 105*(3), 787.

Schanzenbach, D. W., Nunn, R., Bauer, L., Mumford, M., & Breitwieser, A. (2016). Seven facts on noncognitive skills from education to the labor market. *Washington: The Hamilton Project.*

Schonert-Reichl, K. A. (2017). Social and emotional learning and teachers. *The Future of Children, 27*(1), 137-155. Retrieved from http://www.jstor.org/stable/44219025

Schonert-Reichl, K. A., Hanson-Peterson, J. L., & Hymel, S. (2015). SEL and preservice teacher education. In Durlak, J.A., Domitrovich, C.E., Weissberg, R.P., Gullotta, T.P., & Comer, J. (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 406-421). New York, NY: Guilford Press.

Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. *Mindfulness, 1*(3), 137-151.

Sklad, M., Diekstra, R., Ritter, M. D., Ben, J., & Gravesteijn, C. (2012). Effectiveness of school-based universal social, emotional, and behavioral programs: Do they enhance students' development in the area of skill, behavior, and adjustment? *Psychology in the Schools, 49*(9), 892-909.

Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A Meta-Analysis of Follow-Up Effects. *Child Development, 88*(4), 1156-1171.

The Aspen Institute National Commission on Social, Emotional, and Academic Development (2017). Putting it all together: Curriculum that addresses the social and emotional dimensions of learning helps all students thrive academically and prepare for challenges beyond school. Retrieved from https://assets.aspeninstitute.org/content/uploads/2017/08/NCSEADCaseStudy1.pdf

Thompson, R. A. (2014). Stress and child development. *The Future of Children, 24*(1), 41-59.

Ttofi, M. M., & Farrington, D. P. (2011). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review. *Journal of Experimental Criminology, 7(*1), 27-56.

U.S. Department of Education. (2014). *Guiding principles: A resource guide for improving school climate and discipline.* Washington, DC: U.S. Department of Education.

Walter, H. J., Gouze, K., & Lim, K. G. (2006). Teachers' beliefs about mental health needs in inner city elementary schools. *Journal of the American Academy of Child & Adolescent Psychiatry, 45*(1), 61-68.

Webster-Stratton, C., Jamila Reid, M., & Stoolmiller, M. (2008). Preventing conduct problems and improving school readiness: Evaluation of the incredible years teacher and child training programs in high-risk schools. *Journal of Child Psychology and Psychiatry, 49*(5), 471-488.

Weinberger, C. J. (2014). The increasing complementarity between cognitive and social skills. *Review of Economics and Statistics, 96*(4), 849-861.

Weissberg, R. P., Durlak, J. A., Domitrovich, C. E., & Gullotta, T. P. (2015). Social and emotional learning: Past, present, and future. In Durlak, J.A., Domitrovich, C.E., Weissberg, R.P., Gullotta, T.P., & Comer, J. (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 3-19). New York, NY: Guilford Press.

Wilson, S. J., Lipsey, M. W., & Derzon, J. H. (2003). The Effects of School-Based Intervention Programs on Aggressive Behavior: A Meta-Analysis. *Journal of Consulting and Clinical Psychology. 71*(1), 136-49.

Yeager, D.S. (2017). Social and emotional learning programs for adolescents. *The Future of Children, 27*(1), 73-94.

Footnotes

[i] National Network of Business, 2014; National Association of Colleges and Employers, 2016

[ii] Jones & Bouffard, 2012; Johnson & Weiner, 2017

[iii] Jennings & Greenberg, 2009

[iv] Capella, Blair, & Aber, 2016; Jones & Bouffard, 2012; Nagaoka, Farrington, Ehrlich & Heath, 2015

[v] Osher et al., 2017; Jones & Doolittle, 2017

[vi] Deming, 2015; Weinberger, 2014; Schanzenbach, et al., 2016

[vii] Jones et al., 2011; Jones & Doolittle, 2017

[viii] Greenberg, Domitrovich, Weissberg, & Durlak, 2017; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Farrington et al., 2012; Sklad, Diekstra, Ritter, Ben, & Gravesteijn, 2012; Weissberg, Durlak, Domitrovich, & Gullotta, 2015; Blair & Razza, 2007; Bull, Espy, & Wiebe, 2008; Espy et al., 2004; Howse, Lange, Farran, & Boyles, 2003; McClelland et al., 2007; Ponitz et al., 2008; Jones et al., 2017b

[ix] Moffit et al., 2010; Greenberg et al., 2017; Weissberg et al., 2015

[x] Jones & Zigler, 2002; Immordino-Yang & Damasio, 2007; Immordino-Yang, 2011

[xi] Adolphs, 2003

[xii] Raver et al., 2009, 2011; Bierman et al., 2008; Bettencourt, Gross & Ho, 2016

[xiii] Jones et al., 2011; Heckman & Kautz, 2013

[xiv] Farrington et al., 2012

[xv] Jones & Bouffard, 2012

[xvi] Merritt et al., 2012; Schonert-Reichl, 2017; Jones & Bouffard, 2012; Okonofua, Paunesku, & Walton, 2016; Okonofua, Walton, & Eberhardt, 2016

[xvii] Raver et al., 2008; Jones, Bailey, & Jacob, 2014

[xviii] Gregory & Fergus, 2017

[xix] Jennings et al., 2011, 2013; Roeser et al., 2013

[xx] Bouffard, 2017

[xxi] Klassen & Chiu, 2010

[xxii] Heckman, J. J., Stixrud, J., & Urzua, S., 2006; Cunha, F., Heckman, J., & Schennach, S., 2010

[xxiii] Eccles, 1999; Eccles et al., 1993; Conley, 2015

[xxiv] Jones & Aber, 1997; Brion-Meisels & Jones, 2012; Capella, Blair, & Aber, 2016; Nagaoka, Farrington, Ehrlich, & Heath, 2015

[xxv] Jones & Doolittle, 2017

[xxvi] Durlak, 2015; Schonert-Reichl, 2017; Durlak et al., 2011; Taylor, Oberle, Durlak, & Weissberg, 2017

[xxvii] Durlak et al., 2011

[xxviii] Durlak et al., 2011

[xxix] Taylor et al., 2017

[xxx] Durlak et al., 2011; Taylor et al., 2017

[xxxi] Blair & Raver, 2014; Schonert-Reichl & Lawlor, 2010; Barnett et al., 2008; Paunesku, Yeager, Romero, & Walton, 2012; Yeager, 2017

[xxxii] Garbacz, Swanger-Gagne, & Sheridan, 2015; Bernier Carlson, & Whipple, 2010; Bronfenbrenner, 1977; Albright & Weissberg, 2010; Hurd & Deutsch, 2017

[xxxiii] Bronfenbrenner, 1977; Albright & Weissberg, 2010; Garbacz et al., 2015; Durlak, Weissberg, & Pachan, 2010; Durlak & Weissberg, 2007

[xxxiv] Bierman et al., 2010; Crean & Johnson, 2013; Rivers, Brackett, Reyes, Elbertson, & Salovey, 2013; Hagelskamp, Brackett, Rivers, & Salovey, 2013; Jones, Brown, Hoglund, & Aber, 2010; Jones, Brown, & Aber, 2011; Conduct Problems Prevention Research Group, 1999; Raver et al., 2011; Morris et al., 2013; Webster-Stratton, Reid, & Stoolmiller, 2008; Brown, Jones, LaRusso, & Aber, 2010

[xxxv] Taylor et al., 2017

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

[xxxvii] Merritt et al., 2012; Schonert-Reichl, 2017; Farrington et al., 2012

[xxxviii] Jones & Bouffard, 2012; The Aspen Institute Commission on Social, Emotional, and Academic Development, 2017

[xxxix] Jones & Bouffard, 2012

[xl] Durlak et al., 2011; Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008

[xli] Durlak, 2015

[xlii] Durlak, 2015

[xliii] Jones & Bouffard, 2012

[xliv] Larusso et al., 2009; Ttofi & Farrington, 2009; Horner, Sugai, & Anderson, 2010; Wilson, Lipsey, & Derzon, 2003

[xlv] Jones & Bouffard, 2012

[xlvi] Domitrovich & Greenberg, 2000; Jones & Bouffard, 2012

[xlvii] Jones & Bouffard, 2012; Lopes, Mestre, Guil, Kremenitzer, & Salovey, 2012; Kremenitzer, 2005

[xlviii] Reinke, Stormont, Herman, Puri, & Goel, 2011; Schonert-Reichl et al., 2015

[xlix] Alvarez, 2007

[l] Hamre & Pianta, 2006; Rimm-Kaufman & Hamre, 2010; Schonert-Reichl, 2015

[li] Jones & Bouffard, 2012

[lii] Elias, 1997; Elias, Zins, Graczyk, & Weissberg, 2003; Patti, Holzer, Brackett, & Stern, 2015; Patti, Senge, Madrazo, & Stern, 2015; Greenberg, Domitrovich, Graczyk, & Zins, 2005; Dusenbury, Weissberg, & Meyers, 2016

[liii] Belfied et al., 2015

[liv] Brunello & Schlotter, 2011

[lv] Jones, Greenberg, Crowley, 2015

[lvi] Jones, Greenberg, Crowley, 2015

[lvii] Greenberg, Katz, & Klein, 2015; Buckner, Mezzacappa, & Beardslee, 2003, 2009

[lvii] Moffitt et al., 2011; Duckworth & Seligman, 2005

[lix] Greenberg et al., 2015

[lx] Center on the Developing Child, 2007; Thompson, 2014

[lxi] Durlak et al., 2011; Taylor et al., 2017; Bridgeland, Bruce, & Hariharan, 2013; DePaoli et al., 2015

[lxii] Raver, Blair, & Willoughby, 2013; Evans & Kim, 2013; Noble, Norman, & Farah, 2005

[lxiii] Aber et al., 2003; Capella et al., 2016

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