Chapter 17

Advancing the Science and Practice of Social and Emotional Learning: Looking Back and Moving Forward

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This chapter summarizes the results of nearly 100 years of research on school-based social and emotional learning (SEL). The SEL field has grown out of research in many fields and subfields with which educators, researchers, and policymakers are familiar, including the promotion of social competence, bullying prevention, prevention of drug use and abuse, civic and character education, emotional intelligence, conflict resolution, social skills training, and 21st-century skills. The chapter begins with a historical summary of theoretical movements and research trends that have led to today's inclusion of SEL as part of many schools' curricula, policies, and practices. Contemporary approaches that represent current policy and societal concerns are discussed in comparative terms. Based on the converging research evidence, this chapter identifies design elements and implementation quality characteristics of effective approaches to SEL. Recommendations for future practice, policy, and research are provided.

Social and emotional learning (SEL) is defined as the processes by which children and adults acquire and apply core competencies to recognize and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain supportive relationships, make responsible decisions, and handle personal and interpersonal situations constructively (Elias et al., 1997; Weissberg, Durlak, Domitrovich, & Gullotta, 2015). While the term SEL is only two decades old, the interest of schools and researchers in social and emotional development has been evident for over a century. At the same time, debates about the role of public schools in promoting nonacademic outcomes, such as social and emotional skills, have also occurred (Kidron & Osher, 2012; Kolbe, Collins, & Cortese, 1997; National Research Council, 2012). While some policymakers and researchers have called for developing and supporting SEL, citizenship, and character development, along with teaching academics (e.g., Bridgeland, Bruce, & Hariharan, 2013), others see SEL and other types of nonacademic support as tangential to the core mission of education (Tyack, 1992; Tyack & Cuban, 1995).

SEL-related scholarship traces back to 1900. This work gradually developed over the following decades, expanding dramatically in the 1990s. Building on the growing sophistication of research methods and accumulating evidence on the effectiveness of programs to prevent problem behavior and promote healthy development, research also began highlighting the role of social competence and school climate. Social concerns (e.g., bullying and school shootings) created urgency for school-based programs that aimed to promote safe and supportive school environments (Dwyer, Osher, & Warger, 1998; Dwyer & Osher, 2000). These programs benefited from the identification of common mechanisms underlying methods that prevent problem behavior (e.g., violence, bullying, drug use and abuse) and promote personal and civic growth such as emotional intelligence, civic and character values, deeper learning, health promotion, and 21st-century skills (Consortium on the School-Based Promotion of Social Competence, 1994; Elias et al., 1997; Langdon, 1996).

SEL serves as a coordinating field that aligns other areas with which educators, researchers, and policymakers are familiar. These fields address students' capacities to coordinate cognition, affect, and behavior to navigate daily challenges and succeed in college, careers, and life. There remains a need to delineate how these approaches can be integrated into planned, ongoing, systemic initiatives rather than merely collected as fragmented practices, policies, and programs (Shriver & Weissberg, 1996; Weissberg et al., 2015). SEL scholarship has now come full circle, addressing deep-rooted policy problems (Rittel & Webber, 1973) that were salient in the early 1900s (Gorrell, 1988; Lubove, 1974; Muncy, 1991) including inequality, poverty, delinquency, school disengagement and dropout, and lack of tolerance for diversity (Brackett, Ivcevic-Pringle, Moeller, White, & Stern, 2015; Kann et al., 2013; Weissberg, Walberg, O'Brien, & Kuster, 2003).

This chapter summarizes scholarship that contributed to research and practice in SEL. We focus primarily on school-related approaches to SEL. Following a description of the SEL field, we describe and contextualize interdisciplinary strands of

research that set the stage for the emergence of SEL as a research field in the 1990s, including its recent expansion. Next, we analyze contemporary frameworks for understanding SEL, discuss criteria for well-designed SEL approaches and programs, and examine implementation facilitators and challenges. We also identify how challenges can be addressed. We conclude with recommendations for future practice, policy, and research.

WHAT IS SOCIAL AND EMOTIONAL LEARNING?

The field of SEL was introduced and defined in the book *Promoting Social and Emotional Learning: Guidelines for Educators* (Elias et al., 1997), which provided an overview of approaches to teaching both students and adults methods for understanding and managing emotions and social interactions. The fundamental goals of SEL are to (a) promote positive learning environments that are supportive, engaging, and participatory and (b) foster the development of the following five interrelated sets of cognitive, affective, and behavioral competencies:

- *Self-Awareness*—The abilities to recognize one's own emotions and values, to accurately assess weaknesses and strengths, and to possess a well-grounded sense of self-efficacy and optimism
- *Self-Management*—The ability to regulate emotions, thoughts, and behaviors in diverse situations, including the ability to manage stress, control impulses, and set and achieve goals
- *Social Awareness*—The ability to adopt the perspective of those with different backgrounds, understanding social and cultural norms, and recognizing available resources and supports
- *Relationship Skills*—The ability to establish positive relationships with different kinds of people, communicating clearly, listening actively, cooperating, resisting inappropriate peer pressure, negotiating conflict, and seeking help when necessary
- *Responsible Decision Making*—The capacity to make choices based on realistic evaluations of consequences, well-being, ethics, safety, and social norms

A compelling body of research suggests that these core competencies are malleable and can be effectively taught using a variety of approaches and formats. Meta-analytic reviews of this research show that children and adolescents who participate in SEL programs improve their social and emotional skills; attitudes about self, others, and schools; and prosocial behavior, thereby enjoying greater psychological well-being and academic performance (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Sklad, Diekstra, Ritter, Ben, & Gravesteijn, 2012).

SEL intervention strategies evolved over time (Brackett & Rivers, 2013; Jones & Bouffard, 2012; Schonert-Reichl & O'Brien, 2012; Weissberg et al., 2015). SEL has been embedded in schools in a number of forms: as part of a structured curriculum where lessons are taught during time set aside within the school day, as part of a schoolwide approach in which SEL principles are integrated into the fabric of school

life, and through after-school and out-of-school opportunities such as service learning or internships for older students (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2013, 2015). Early efforts focused primarily on classroom programs that targeted a single outcome such as peer relationships or bullying (CASEL, 2003). Over the past 10 years, more systemic approaches have involved the implementation and evaluation of coordinated efforts that involved a whole school approach, family connections, and community partnerships (Brackett & Rivers, 2013; Weissberg et al., 2015). Some of these approaches involved explicit skill-building lessons, while other practices were integrated across the curriculum. For example, research conducted by the Center on Great Teachers and Leaders identified 10 instructional strategies that teachers use throughout the school day that can affect students' social and emotional skills. These practices include student-centered discipline, teacher language, cooperative learning, and self-assessment and self-reflection (Yoder, 2014). There is now more focus on local, state, and federal policies that can influence the quality of SEL implementation at the district, school, and classroom levels (Dusenbury et al., 2015; Zaslow, Mackintosh, Mancoll, & Mandell, 2015).

CONTEXTUALIZING THE INTELLECTUAL ROOTS OF SOCIAL AND EMOTIONAL LEARNING

The roots of SEL are intellectually diverse and politically nonpartisan. This section traces these roots to Progressive Education; ecological and transactional perspectives in sociology, criminology, and psychology; school-based promotion of wellness; social learning and cognitive behavioral theory; and developments in studies of personality, emotion, and intelligence.

Engaged Citizenship in Relation to a Democratic Society

The Progressive Era roots trace back to Jane Addams and John Dewey and their promotion of engaged citizenship, the Mental Hygiene Movement and its initial focus on the prevention of mental illness, and Thorndike's (1920) conceptualizations of social intelligence. Addams (1902) and Dewey (1916) addressed the importance of social competence and its relationship to a democratic society and self-directed, socially responsible behavior. Addams (1902) stated that schools should teach students "to direct their own activities and adjust them to those of other people" (p. 42). Dewey (1916) called for schools creating "conditions for growth" (p. 14) where students develop "social dispositions" (p. 13) and develop self-control (as opposed to external control). Both Addams and Dewey understood the power of ecology and viewed group experiences as providing an opportunity for the development of social skills. However, student-centered approaches did not dominate pedagogy, and reforms that worked in lab schools were often diluted in practice (Cuban, 1993; Zilversmit, 1993). A focus on social and emotional development and the factors supporting it was not a part of the grammars of schooling and instruction—those widely held implicit beliefs regarding how schools should be organized

and what teachers do (Murphy & Torre, 2013; Scheerens, 1997; Tyack & Cuban, 1995; Tyack & Tobin, 1994). Nonetheless, this line of work contributed to SEL interventions such as the Caring School Communities (CSC; Battistich, Solomon, Watson, & Schaps, 1997) and the Responsive Classroom (Rimm-Kaufman & Chiu, 2007).

The Influence of Ecology and Transactional Models of Development

Four seminal thinkers extended the reach of ecological thinking and influenced the development of SEL. Lewin (1935) suggested that all psychological events are a function of the life space, which he conceptualized as the constellation of interdependent factors associated with the person and environment. Lewin's research demonstrated the impact of social factors on goal setting, conflict, and aspiration (Lewin, 1951) and contributed to research on group dynamics (Lewin, 1947). Bronfenbrenner's "bioecological paradigm" (Bronfenbrenner & Ceci, 1994) influenced research on systemic interventions in the 1980s and 1990s (Elias et al., 1997; Steinberg & Morris, 2001). Vygotsky also focused on how social factors influence learning. His conceptualization of the zone of proximal development was applied successfully to understanding the social origins of self-regulation (Diaz, Neal, & Amaya-Williams, 1990). Finally, Sameroff's transactional model of development emphasized the central role of the interplay between a child and his or her primary relationships and contexts, and the nature and role of risk and protection (Sameroff, 1975). Sameroff introduced a focus on understanding bidirectional relationships between the child and the experiences embedded in the family, school, or community contexts. Together, these approaches contributed to understanding the role of peers, families, teachers, classroom and school climate, and even public policy in fostering social and emotional skills.

Beyond Intervention: The Expansion of Prevention and Promotion Strategies

Ecological thinking was marginalized by many psychologists who focused on reactive and individualized approaches to pathology. In addition, education in the 1960s often focused on compensatory education for disadvantaged learners (Ryan, 1972). Two critiques of these reactive and compensatory approaches to social problems contributed to the development of SEL. The first challenged reactive pathology-focused approaches to mental wellness. Such approaches, Cowen (1971, 1994) argued, could never reach all who needed services and ignored the factors that contribute to psychological wellness (e.g., happiness, life satisfaction, sense of belonging, and sense of purpose in life). Interest in wellness included the study of resilient children (Cowen & Work, 1988). This, in turn, led theorists to see the importance of social awareness and support (Masten, 2013; Werner, 1989) and social competence (Rutter, 1987) in children's ability to overcome adversity.

The second critique attacked the inefficiencies of narrow educational approaches that focused only on academics and reactive treatment of disorders. For example, Comer and Zigler both offered alternatives to educational approaches that attributed academic shortcomings to the disadvantaged students' cognitive deficits. Comer

(2004) focused on the importance of child development and the role that social support and social and emotional competence played in children's success. Zigler and colleagues focused on the whole child more generally and critiqued educational approaches that focused on cognitive abilities alone. In contrast to those approaches, Zigler emphasized the importance of social competence and motivational factors that children develop to adapt to adverse life circumstances such as poverty and neglect (Zigler, 1973; Zigler, Abelson, & Seitz, 1973; Zigler & Trickett, 1978).

Zigler and colleagues' emphases were consistent with social learning theory (SLT) and cognitive behavioral therapy (CBT), which influenced the development of SEL models. SLT leveraged Bandura's (1974, 1977) critique of unidirectional behavioral and trait-based explanations for human behavior and replaced them with "reciprocal determinism." This concept included self-expectancies, which are affected by self-awareness and social awareness, both of which are important to self-monitoring of behavior, its determinants, and its effects (Bandura, 1974, 1977, 1991; Mischel, 1973). Bandura's application of SLT to the prevention and treatment of aggressive behaviors supported the development of classroom and schoolwide approaches to violence prevention, as well to understanding the importance of social modeling in the development of social and emotional competencies (Elias & Clabby, 1992; Elias, Parker, Kash, Weissberg, & O'Brien, 2007).

CBT (Meichenbaum, 1977), which provided a theoretical base for many SEL interventions on social problem solving (Chang, D'Zurilla, & Sanna, 2004; Kazdin & Weisz, 1998) and social information processing (Crick & Dodge, 1994), is, in part, grounded in SLT's focus on modeling, observational learning, and cognitive expectancies. CBT is also grounded in behaviorist theories of classical conditioning and operant learning, as well as in cognitive theory and cognitive therapy, which focus on the thoughts, cognitive schema, beliefs, attitudes, and attributions that influence one's feelings and mediate the relationship between antecedents and behavior. CBT contributed the following pieces to the common SEL problem-solving paradigm:

- Identifying an emotionally challenging or problematic situation
- Identifying and addressing the feelings related to it
- Putting the problem into words and identifying a goal
- Generating multiple options and analyzing their potential short- and long-term consequences for oneself and others
- Making a choice and planning and rehearsing how to carry out that choice
- Taking the necessary action and then reflecting on what happened and what can be learned from it

Understanding the Connection Between Emotions and Cognitive Processing

Affective education reintroduced affect as a domain closely related to student academic performance (Cantor, 1976; Carkhuff, 1982) by simultaneously teaching academics and introducing an affective curriculum to address the affective states and

emotional competencies that increase or decrease students' persistence, curiosity, interest, attention, decision making, and other learning-related cognitions and behaviors (Beane, 1985; Martin & Reigeluth, 1992). Affective education recognized that students' feelings about themselves as learners and about their academic interests influence their academic effort and engagement (Lang, Katz, & Menezes, 1998). For example, students who believe that their intellectual abilities are stable rather than malleable are less likely to take on academic challenges and show academic effort, especially in the face of failure (Blackwell, Trzesniewski, & Dweck, 2007; Good, Aronson, & Inzlicht, 2003). Similarly, stereotype threat affects the performance of female students and students of color (Steele, 2003). Affective education research also provided additional support for including experiential, inquiry-based activities in SEL (Buffington & Stilwell, 1981; Thayer, 1976).

A Broader Conceptualization of Intelligence

Research on emotional intelligence (Salovey & Mayer, 1990) began in the 1990s. This work included expanded conceptualizations of intelligence and a renewed interest in emotion, motivation, and social intelligence. It also drew on Gardner's (1983) conceptualization of multiple intelligences, which included inter- and intrapersonal intelligence, as well as Sternberg's (1985) conceptualization of practical intelligence, which included managing self, work, and cooperating with others.

The expanded understanding of emotions moved away from an intrapsychological view of emotions to one that viewed emotions relationally and examined emotion regulation and interpersonal attunement (Campos, Campos, & Barrett, 1989). This work contributed to Salovey and Mayer's (1990) conceptualization of emotional intelligence as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (p. 189). These threads also contributed to a refined conceptualization of social competence as "the capacity to integrate cognition, affect, and behaviors to achieve specified social tasks and positive developmental outcomes" (Consortium on the School-Based Promotion of Social Competence, 1994, p. 275). This development emphasized the role of social and emotional skills in problem solving within the context of one's culture, neighborhood, and interpersonal situation where the interaction occurs.

Research Foundations for Focusing on SEL and Its Relationships to Outcomes That Matter

Although calls for integrating the social and emotional aspects of student learning into academic instruction have been voiced periodically since 1900, funding for SEL research only gained momentum when the definition of school success and quality education was expanded to include nonacademic skills. Two strands of research were important here. The first demonstrated associations between social and emotional skills and academic achievement, as well as other school-related outcomes of interest.

The second demonstrated the relationship between some or all of these skills and postsecondary and vocational success (Deming, 2015; Duckworth & Seligman, 2005; Fergusson, Boden, & Horwood, 2013).

The preponderance of evidence, including implementation studies, revealed at least modest effects of SEL programs when implementation adhered to some key design elements (Faria, Kendziora, Brown, O'Brien, & Osher, 2013; Osher, Kendziora, & Friedman, 2014a, 2014b). A meta-analysis of 207 programs showed effects on social competence, behavior, and academics, for example, an improvement index of 11-percentile-point gain in academic achievement in the 37 studies that assessed it through report card grades and test scores (Durlak et al., 2011).[1] A meta-analysis of 75 universal SEL programs, which included 16 non-U.S. programs (Sklad et al., 2012), provided additional evidence consistent with Durlak et al.'s (2011) findings. Another meta-analysis of programs designed for students presenting a range of social, emotional, and behavioral programs found similar positive impacts of SEL programs on academic outcomes (effect size of 0.53; Dymnicki, Kendziora, & Osher, 2012). Intervention research published subsequent to Durlak et al.'s (2011) meta-analysis supported its conclusion, as does a meta-analysis of longitudinal effects (Taylor, Oberle, Durlak, & Weissberg, in press). For example, randomized controlled trials of a variety of interventions, including Promoting Alternative Thinking Strategies, Responsive Classroom, 4Rs, and Positive Action, showed improved academic effort and achievement using indicators such as reading, writing, and math test scores and absenteeism rates (Bavarian et al., 2013; Jones, Brown & Aber, 2011; Rimm-Kaufman et al., 2014; Schonfeld et al., 2015).

SEL has also been linked to other outcomes of educational interest. For example, one whole school approach to SEL, RULER®, has been shown to influence classroom climate and teacher instructional support (Hagelskamp, Brackett, Rivers, & Salovey, 2013; Rivers, Brackett, Reyes, Elbertson, & Salovey, 2013). Analysis conducted by the What Works Clearinghouse demonstrated that SEL can be an important part of dropout prevention programs (Dynarski et al., 2008). Additional research linked student reports of peer social and emotional competence to graduation rates (Kendziora, Osher, & Chinen, 2008). Similarly, recent approaches to preventing bullying, low-level aggression, and the school-to-prison pipeline emphasized the importance of SEL along with other interventions (Espelage, 2013; Espelage, Rose, & Polanin, 2015; Lewis et al., 2013; Osher, Bear, Sprague, & Doyle, 2010; Osher, Quinn, Poirier, & Rutherford, 2003; Swearer, Espelage, Vaillancourt, & Hymel, 2010). Finally, SEL interventions for teachers (e.g., mindfulness training) may reduce teacher stress, which appears to contribute to exclusionary discipline and discipline disparities (Hart, Wearing, & Conn, 1995; Osher et al., 2012; Roeser et al., 2013).

The broader definition of school success has also been influenced by economists and others who focused on adult outcomes. Heckman and colleagues demonstrated that socioemotional skills and attributes are as important as cognitive competencies and contribute to social performance, job outcomes, and higher education (Almlund, Duckworth, Heckman, & Kautz, 2011; Heckman & LaFontaine, 2010; Heckman,

Stixrud, & Urzua, 2006). The conceptualization of 21st-century skills linked SEL attributes to college and career readiness that includes mastery of nonacademic skills such as flexibility, adaptability, collaboration, and creativity (Dymnicki, Sambolt, & Kidron, 2013; Gabrieli, Ansel, & Krachman, 2015; Partnership for 21st Century Skills, 2008; Trilling & Fadel, 2009).

CONTEMPORARY FRAMEWORKS FOR SOCIAL−EMOTIONAL LEARNING

As noted at the outset of this chapter, SEL has been defined or characterized in a number of ways. This variety is embodied in the large number of frameworks, which represent the diversity of perspectives and disciplinary "takes" on the field. At its core, a framework is an organizing structure that underlies a system, concept, or set of linked ideas and can be broad or narrow. The body of frameworks tied directly and indirectly to SEL include those that are comprehensive in nature (reflecting a broad array of interlinked domains), those that go deep into one particular domain or another (e.g., emotional intelligence, executive function), those that are more narrowly organized around a single concept or construct (e.g., growth mind-set), those that are simply a list of skills, and those that are embodied in state standards (Dusenbury et al., 2015). These frameworks hold a common purpose: to inform and guide research, practice, and policy. Across frameworks, however, terms are often used in different ways, and in some cases, the same skill or competency may have different names, or the same name may be employed to refer to different skills. SEL frameworks also vary in the extent of their focus on school success versus long-term growth and in the degree to which they include social relationships and psychological well-being versus skills that promote college and career readiness and success (Hagen, 2013).

We will provide a brief overview of some major contemporary frameworks for SEL, focusing on those we define as comprehensive (reflecting a broad array of inter-linked domains and typically situating the model in key and influential contexts). However, as noted above, frameworks can take several forms. The nature of any par-ticular framework, and the manner in which it evolved over time, signals its orienta-tion toward practice, research, and policy. Some frameworks (e.g., CASEL, 2013) are organized with an eye toward practice, while others are constructed to guide research (e.g., models of executive function and self-regulation; Diamond, 2013) or policy (e.g., O*Net Online; National Center for O*NET Development, n.d.).

The most ubiquitous and long-standing framework is CASEL's, which builds on SEL research more broadly. It draws on developmental–contextual models, which view human growth and change as taking place in a nested and interactive set of contexts (Bronfenbrenner & Morris, 1998). At the center of this framework are core social and emotional skills or competencies, organized into five domains that are thought to contribute to children's school success and life outcomes. These domains include observable behaviors and internal processes such as perceptions or beliefs. Two domains are self-oriented, two others are relational, and one is behavioral.

Another practice-oriented comprehensive framework, which uses terminology employed in the research literature, applies a developmental lens more elaborately (Jones & Bailey, 2016; Jones & Bouffard, 2012). It arrays skills over time, suggesting that skills are salient at different developmental moments, with early skills laying the foundation for those that come later. It groups social and emotional skills into three overlapping conceptual categories: emotional processes, social/interpersonal skills, and cognitive regulation. Emotional processes include emotional knowledge and expression, emotional and behavioral regulation, and empathy. Social/interpersonal skills include understanding social cues, interpreting others' behaviors and perspective-taking, navigating social situations, interacting positively with peers and adults, and behaving in a prosocial manner. Cognitive regulation includes basic executive functions such as attention control, response inhibition, working memory, and cognitive flexibility or set-shifting.

While the inclusion of cognitive regulation reflects the rapid expansion of research (and intervention) in executive function over the past decade (Diamond, 2013), the idea of the *central capacity for regulation* provides a developmental thread linking the three domains—in order to *use* any of the identified skills to meet the demands of a particular task or context, children should be able to manage themselves in deliberate and goal-oriented ways. Jones's framework also incorporates a general "developmental sequence" organized according to two basic questions: (a) What skills serve as foundations for later ones? (b) What skills must be mastered before moving to the next set? (Jones & Bailey, 2016).

Other comprehensive frameworks include those developed by the Chicago Consortium on School Research and the Wallace Foundation (Farrington et al., 2012; Nagaoka, Farrington, Ehrlich, & Heath, 2015), which directly incorporate a developmental sequencing view and include a more detailed representation of identity, beliefs, values, and mind-sets, and the recently formulated Building Blocks Framework, which requires empirical research to determine the relationships of the individual building blocks and to determine their sequencing. Building Blocks articulates a developmental progression of prerequisite skills or "blocks" (e.g., self-regulation, growth mind-set) that must be cultivated before building higher order skills (e.g., agency, self-direction, resilience) that are common to successful learners (Stafford-Brizard, 2016). These frameworks and others (e.g., Partnership for 21st Century Skills, 2015) represent a growing interest in defining skills that are aligned with the realities of 21st-century education and employment systems, skills that students need if they are to succeed in work, life, and citizenship.

SYNERGY ACROSS FRAMEWORKS

Synergy across contemporary SEL frameworks is possible because key constructs are embedded in some form in most, if not all, frameworks. Self-regulation, including emotional regulation, provides an example of a construct with a deep research base that appears across frameworks, sometimes using different terms, including self-management, self-discipline, self-control, and impulse control.

Emotion regulation involves cognitive, physiological, and behavioral processes that are responsible for monitoring, evaluating, and modifying the experience and expression of emotions in order to accomplish personal goals (Calkins & Hill, 2007; Cole, Martin, & Dennis, 2004; Eisenberg & Spinrad, 2004; Gross & Thompson, 2007). Emotion regulation skills help children organize, enable, or hinder internal psychological processes, such as the deployment of attention, decision making, and the ability to solve complex interpersonal challenges (Fischer, Shaver, & Carnochan, 1990). Research shows that children with more developed emotion regulation skills are more likely to pay attention during class, control their anxiety during tests, and build and maintain friendships (Bradley et al., 2010; Fabes et al., 1999; Graziano, Reavis, Keane, & Calkins, 2007).

SEL frameworks can inform the design of developmentally appropriate emotion regulation programs and practices. For example, research suggests that developmental trajectories of emotion regulation skill acquisition vary across at least five dimensions:

- *Emotion Differentiation*—For example, is anger or disappointment or joy being regulated?
- *Focus of Regulation*—For example, is it the situation that needs to be modified or is it the emotion?
- *The Component of the Emotional System Being Regulated*—For example, are regulation efforts focused on physiological or behavioral responses?
- *Type of Strategy*—For example, does the individual use cognitive or behavioral strategies?
- *Type of Display Rule*—For example, does the individual know when and how to express emotions verbally or nonverbally across contexts? (Torrente, Nathanson, Rivers, & Brackett, 2015)

Developmental research indicates specific patterns of skill acquisition and use across these dimensions. For example, 5-year-olds have a well-developed understanding of basic emotions such as sadness and happiness, but only after age 7 do children come to understand more complex emotions such as shame and pride (Widen & Russell, 2010). Similarly, a 10-year-old can understand that some strategies, such as dampening of expectations, can be useful for preventing a specific emotion such as disappointment, but not other emotions, like frustration (Guttentag & Ferrell, 2008). In general, it is expected that with maturation and experience children expand their repertoire of regulatory strategies. By middle to late childhood, most children can generate a great number of strategies to deal with negative situations and unpleasant emotions, yet there is great variability in the implementation of these strategies (e.g., Blandon, Calkins, Keane, & O'Brien, 2008).

THE MECHANISMS THROUGH WHICH SEL PROGRAMS OPERATE

Contemporary frameworks of SEL elevate essential questions relevant to program design and implementation and challenge program developers and researchers to

articulate theories of change and to test explanatory models of the effects of SEL. Framing questions regarding program effects in terms of mediated pathways can expand the scope, rigor, and applicability of SEL research. The limited number of studies on pathways of change notwithstanding, researchers have demonstrated that it is possible to identify the social–cognitive processes and the social and emotional skills, as well as the setting-level characteristics that mediate the effects of SEL programs on desired outcomes, such as reduced problem behavior (Dymnicki, Weissberg, & Henry, 2011; Langeveld, Gundersen, & Svartdal, 2012; Osher, Poirier, Jarjoura, & Haight, 2014).

Such research expands our understanding of developmental trajectories. For example, in early childhood, the effects of self-regulation on academic achievement may be mediated by children's ability to initiate positive interpersonal interactions that facilitate learning (Montroy, Bowles, Skibbe, & Foster, 2014). In early adolescence, social information processing may mediate the relationship between peer experience (e.g., level of popularity or rejection in the peer group) and the use of coping strategies in conflictual situations (Bowker, Bukowski, Hymel, & Sippola, 2000). In addition, such research can also identify program design elements, such as improving classroom management strategies and developing teacher–student relationships, that enhance the effects of SEL programs (Brackett, Rivers, Reyes, & Salovey, 2012; McCormick, Cappella, O'Connor, & McClowry, 2015).

CRITERIA FOR WELL-DESIGNED SEL APPROACHES AND PROGRAMS

The rich body of empirical and descriptive research on universal SEL programs makes it possible to develop criteria for identifying effective SEL programs and practices. Six key criteria for programs are that they be (a) developmentally appropriate, (b) culturally relevant, (c) systemic, (d) comprehensive, (e) evidence-based, and (f) forward thinking.

Developmentally Appropriate SEL Programs

SEL programs must incorporate tools, language, activities, and lessons that are tailored to students' development and align with children's cognitive, social, and emotional skills across multiple grades. Theories of social and emotional development can inform program developers about the skills students tend to have at different ages as well as the type of knowledge and experiences students need to further develop their skills (e.g., Denham, 1998; Jones & Bouffard, 2012; Saarni, 1999). For example, most preschool- and kindergarten-age children understand basic emotion concepts such as happiness and sadness, whereas students in the upper elementary grades can more easily understand complex, self-conscious emotions such as pride and guilt (Harris, 1999). An effective SEL program scaffolds the teaching of different skills accordingly. For example, cognitive reappraisal, a well-researched and effective emotion regulation strategy, is more appropriate for adolescents as opposed to very

young children, because of the level of cognitive reframing necessary to employ this strategy (Gross, 1999).

Theories such as social information-processing theory (Crick & Dodge, 1994) and transactional theory (Sameroff, 1975) can help SEL program developers and implementers better understand the psychological needs of students and their interactions with their environment. Understanding child development can also inform our understanding of the number of lessons or experiential opportunities necessary to enhance specific skills at various developmental levels, or the appropriate format or length of a classroom lesson. Dealing with peer pressure, for example, will be more complex for 10th graders than for 3rd graders, and younger students might learn better with 20-minute lessons three times a week that incorporate hands-on activities, whereas high school students might learn better during 45-minute lessons twice a week that incorporate peer teaching methods.

Research and practical experience implementing SEL suggested that key developmental stages, which are related to cognitive and psychological development as well as to changes in a child's social fields, are also connected to SEL development (Kellam & Rebok, 1992). Early childhood is a key time for executive function development, the expansion of simple emotion knowledge and expression, and the emergence of emotion and behavior management and basic social engagement. The transition to school includes the emergence of planning, organizing, and goal setting, as well as basic empathy and perspective taking, as children become more attuned to social cues. Middle childhood includes greater capacity for sophisticated friendships, prosocial behaviors, and conflict resolution strategies.

Theories about adolescent development that highlight the emergence of complex, abstract cognitive reasoning, identity formation, and future aspirations serve as the basis for the design of age-appropriate programs for those age groups. For example, SEL programs for adolescents may include more student voice and choice; students leading SEL activities, including solving moral dilemmas; and service learning. In addition, owing to the rise in risk and criminal behavior in the middle grades, and based on developmental theories that identify precursors for these types of behavior, many SEL programs have been implemented with the primary focus of preventing problem behavior (Jagers, Harris, & Skoog, 2015; Williamson, Modecki, & Guerra, 2015).

Culturally Relevant SEL Programs

Although social and emotional skill development is important for all students (Denham & Weissberg, 2004), the approach to developing these skills, the ways in which they are modeled, and the adults who are teaching them should attend to cultural diversity. This includes considering the cultural relevance of values, attitudes, behavior, and meanings of SEL-related concepts. Considerable research confirms that norms around social and emotional skills vary tremendously by culture. For example, emotions are interpreted, expressed, and regulated differently, and rules governing

relationships and social interactions differ depending on culture, including region, socioeconomic status, language, religion, race, and other factors (Hoffman, 2009).

Approaches to SEL must address these cultural differences and adapt approaches to unique environments, beliefs, and behavioral norms. Although insufficiently addressed at this time, this understanding is becoming more widely discussed in the field because of concerns that SEL practices developed and implemented within a Western culture may not address cultural subgroups adequately (CASEL, 2013). Adaptation is possible. For example, the CASEL framework has been adapted by the Association of Alaska Schools Boards in collaboration with First Alaskans to make it consistent with Athabascan, Tlingit, Inuplat, and Yup'ik culture. Self-management, for example, has been operationalized to include self-sufficiency, honesty, patience, humility, and fairness, while relationship skills include sharing, village cooperation, listening, peace, unity, speaking up with care, and holding each other up (Association of Alaska School Boards, 2015). Similarly, Chinese experts have adapted the CASEL framework (and a related one developed by Anchorage Alaska) to be more consistent with Chinese culture. In Chinese culture, there are two kinds of subjects apart from oneself—others and the group—and a person is expected to exhibit different self-regulation and habits when dealing with others than when dealing with the group (Yaqing, 2015). Chinese SEL experts applied this logic to conceptualize and operationalize a Chinese version of SEL. It included the Western focus on understanding and managing oneself and one's relationships with others but also included collective awareness and managing of relationships between oneself and the collective. This conceptualization and its operationalization in a self-report survey informed an initiative of the Chinese Ministry of Education in Collaboration with UNICEF China, which was piloted in five counties in southwest China (Guangxi, Yunnan, Guizhou, Xinjiang, and Chongqing) and included 250 schools, serving approximately 140,000 students (Yaqing, 2015).

Comprehensive and Systemic SEL Programs

SEL is grounded in ecological ideas that center on building social and emotional skills among students and improving the quality of the environments in which learning occurs. Systemic SEL approaches should address the fact that schools are dynamic and complex systems that affect social and emotional outcomes for students (Osher et al., 2014; Tseng & Seidman, 2007). Efforts that align with the roles, personal characteristics, norms, skill levels, and needs of the adults and students within each school will help address the extent to which programs meet this criterion (Garibaldi, Ruddy, Kendziora, & Osher, 2015; Osher & Chasin, 2016; Osher et al., 2014a).

Improving the quality of environments relates to how a school is experienced phenomenologically, which is a product of the relationships between and among students, educators, and staff, and the discipline policies, among many other components (Osher et al., 2008). School climate is also a product of school culture and behavioral norms at both the school and classroom levels, the ways in which the school functions, and the methods by which students are educated. SEL practices

also are affected by aspects of school climate that relate to the myriad of interactions that take place between and among members of the school community (Hoy & Miskel, 2012). SEL depends on training and support for all involved in children's lives, including school staff, families, and community members (Brackett & Rivers, 2013; Greenberg et al., 2003). SEL programs are starting to become more explicit about intended outcomes for adults and other members of the school community, given work that suggests the importance of adult modeling, stress management, and coregulation (Jennings & Greenberg, 2009; Osher et al., 2012; Osher et al., 2014b). In addition, systemic SEL programs are starting to include measurement of school-level and adult outcomes, given accumulating research about effects of SEL programs on outcomes such as teacher morale and retention.

Evidence-Based SEL Programs and Practices

The design of many school-based programs and practices has been grounded in developmental and education research, although some of the programs themselves have not yet been subjected to rigorous scientific study (Jones & Bouffard, 2012). As in the case of other types of educational interventions, evaluations of the effects of school-based SEL programs vary in rigor and generalizability. Rigor is necessary for drawing conclusions about relationships of cause and effect, whereas generalizability is necessary for replicating program effects in different school settings and with diverse student populations (Forman, 2015; Hedges, 2013).

A growing number of SEL programs have been reviewed by independent reviewers using systematic research review criteria (e.g., What Works Clearinghouse, 2014) and included in registries of evidence-based programs or published summaries of the strength of the evidence (e.g., CASEL, 2013, 2015; Epstein, Atkins, Cullinan, Kutash, & Weaver, 2008; Mihalic & Elliott, 2015; Osher, Dwyer, & Jackson, 2004; Tolan, 2013).

Comprehensive program reviews have identified evidence-based SEL programs for students at various grade levels to address this need. Registries of the research evidence can be searched online by program and target population characteristics (e.g., the What Works Clearinghouse reviews of interventions under the topic of Student Behavior [http://ies.ed.gov/ncee/wwc/topic.aspx?sid=15] and the National Registry of Evidence-Based Programs and Practices [http://nrepp.samhsa.gov]). The development of standards and tools for examining the research evidence in the context of school-based prevention and intervention programs (e.g., understanding what rigor looks like and what should be the standard expectations for generalizability of research) can support program selection, which must also be attentive to local context and readiness to implement (Dymnicki, Wandersman, Osher, & Pakstis, 2016; Osher et al., 2004).

SEL and New Advancements in Educational Programs

SEL can draw on advances in education. For example, experts have experimented with the use of educational technology for SEL (Stern, Harding, Holzer, & Elbertson,

2015). Schools are increasingly adopting blended learning strategies to incorporate wiki sites, webinars, blogs, and other computer technology innovations into teaching and learning. Blended learning saves schools the costs associated with individualized instruction, including staffing and materials, and can improve learning outcomes for students, as compared with traditional face-to-face instruction (Finn & Achilles, 1990; Staker, 2011; Tamim, Bernard, Borokhovski, Abrami, & Schmid, 2011).

There have been some steps to incorporate technology in SEL interventions (e.g., Enz et al., 2008). Using technology, developers have constructed virtual role-play approaches that provide a safe place for exploring experiences of self and other and reflecting on behavior and attitudes. The use of digital SEL games enables a new kind of assessment. For example, Zoo U is a digital game–based social skills assessment tool in which an avatar created by the student participant is a student in a school for future zookeepers. The avatar encounters common social scenarios similar to those that might be experienced at school, and the student must make dialogue, action, and behavior choices (Craig, DeRosier, & Watanabe, 2015; DeRosier, Craig, & Sanchez, 2012). Computer-based programs are in no way typical of the prevalent school-based SEL approaches, and their efficacy needs to be further established.

Experiential education provides another example. It has been at the forefront of educational innovations in the past three decades. Ranging from art education to service learning, experiential education has been associated with improved social and emotional skills (Celio, Durlak, & Dymnicki, 2011; McKay-Jackson, 2014). Experiential education principles have demonstrated the promise of promoting both social skills and academic learning (Conrad & Hedin, 1982). Student-centered pedagogical approaches such as project-based and inquiry-based learning, self-reflection, and addressing different learning styles promote interest and motivation, which may in turn promote academic effort, engagement, comprehension, and retention of the materials learned (Skelton, Seevers, Dormody, & Hodnett, 2012).

IMPLEMENTATION QUALITY OF SEL PROGRAMS

SEL program design features are important but not sufficient. The quality of implementation also affects outcomes (Durlak & DuPre, 2008; Faria et al., 2013; Osher et al., 2014a; Reyes, Brackett, Rivers, Elbertson, & Salovey, 2012). For example, analyses of evaluation of data from the first cohort of an eight-district collaborating district initiative found that in two of three districts, where a sufficient set of data were available to do rigorous analyses, implementation was significantly related to student outcomes (Osher et al., 2014a).

So far, researchers have most commonly defined implementation quality in terms of fidelity to the original program design or at least to what are defined as its core features. Other aspects of implementation include the extent to which participants are engaged by and involved in the activities (Gottfredson et al., 2015; Mihalic, 2004). Increasingly, definitions of implementation quality have expanded to address conditions that support implementation. Durlak (2015) identified five categories

of factors that, according to research reviews, influence quality of implementation: (a) community-level factors, (b) characteristics of staff delivering the program, (c) features of the program to be offered, (d) features of the host school where a program is to be offered, and (e) features of professional development (PD). Under each of these categories, multiple factors may be identified and addressed by program implementers and evaluators.

Syntheses of research and practice wisdom suggest that how implementation fidelity may be operationalized depends on the implementation step. For example, one may not expect a school to reach full program implementation quickly, because of the need to ensure that all the supporting conditions are in place for adequate implementation when the intervention is implemented. Fixsen, Naoom, Blase, Friedman, and Wallace (2005), based on review of the research, identified six key stages of implementation: (a) Exploration and Adoption, (b) Program Installation, (c) Initial Implementation, (d) Full Operation, (e) Innovation, and (f) Sustainability. Each of these stages may require different measures of implementation quality. Nevertheless, some conditions for implementation may be shared by all implementation stages, including PD and technical assistance, educational leadership, and financial and logistical considerations. These conditions are further described below.

Professional Development and Technical Assistance

Many teachers lack prior training in SEL and require PD on SEL in general as well as on the program core components specifically (DeGaston, Jensen, Weed, & Tanas, 1994; Greenberg et al., 2003). In their discussion of factors that influence the outcomes of school-based social skills training programs, Rotheram-Borus, Bickford, and Milburn (2001) argued that implementers need to be socially competent, be able to manage children in small groups, be familiar with the theoretical model underlying the program, and have the opportunity to practice delivering the program.

Research on the association between teacher PD and program outcomes is sparse. For example, Yoon, Duncan, Lee, Scarloss, and Shapley (2007) reviewed more than 1,300 studies of PD in mathematics, science, and English language arts and found only 9 studies that examined the impact of PD on student achievement and met the review's criteria based on What Works Clearinghouse (2014) design standards. Yet the findings suggest that both initial training and follow-up PD are important. For example, a recent rigorous randomized study of PD in reading involving workshops and coaching showed an impact on teachers' knowledge and classroom instruction, although not on student achievement (Garet et al., 2008). Ongoing professional learning and technical assistance supported increased implementation fidelity by teachers with low initial adherence to the program (Dufrene, Noell, Gilbertson, & Duhon, 2005; Mihalic, Fagan, & Argamaso, 2008). A number of studies demonstrated the positive association between teacher training, including the amount of time and the intensity of the training, and the effectiveness of bullying prevention programs (Bradshaw, 2015; Farrington & Ttofi, 2009). In one study of RULER®,

students had more positive outcomes, including higher emotional intelligence and better behavior grades, when their teachers participated in more training and coaching (Reyes et al., 2012).

Tools are being developed to help teachers develop these skills. For example, watching videos of themselves teaching SEL lessons can support teachers in developing a reflective practice (Hafen et al., 2012), contribute to student relationships with peers, and reduce disciplinary referrals (Hafen, Ruzek, Gregory, Allen, & Mikami, 2015; Mikami, Gregory, Allen, Pianta, & Lun, 2011).

Educational Leadership

Some key characteristics of the implementation context, such as school leadership, may moderate the relationship between PD and student outcomes. For example, a study of implementation quality of the Responsive Classroom® approach suggested that participation in training on its own may be insufficient to promote teachers' investment in the program and change in their relationships with students (Baroody, Rimm-Kaufman, Larsen, & Curby, 2014). School principals may play an important role in motivating teacher buy-in (Downer et al., 2013), including determining when PD is insufficient and when there are needs for refresher training and one-on-one coaching (Wandersman, Chien, & Katz, 2012). Leaders can create opportunities for teachers' self-reflection on practice, particularly if the leaders nurture relational trust—including teachers' trust in their students, parents' and students' trust in the teachers, and teachers' trust in their colleagues (Schneider, Judy, Ebmeye, & Broda, 2014; Tschannen-Moran & Gareis, 2015).

Leadership entails management, monitoring, and advocacy. Research suggests that school leadership has an important role in the implementation of programs, policies, and practices with fidelity and in ensuring these practices are sustained and institutionalized over time (Osher et al., 2014a). Leaders can advocate for SEL, incorporate goals related to SEL as part of the school's mission and vision to track implementation, troubleshoot challenges to implementation, and hold teachers accountable for SEL outcomes (Elias et al., 1997; Flaspohler, Duffy, Wandersman, Stillman, & Maras, 2008; Han & Weiss, 2005). Research has shown that ongoing communication with staff promotes motivation as well as quality of implementation. Such communication may include opportunities for staff to voice their concerns about the program and joint discussions about how these concerns might be addressed (Freeman, 2014).

Financial and Logistical Considerations

Research suggests that SEL programs produce a strong return on investment. For example, Belfield et al. (2015) determined that six SEL programs produced, on average, a benefit-to-cost ratio of $11 for each dollar invested. SEL programs may reduce the immediate costs associated with aggressive behavior and bullying, such as days of missed school; time of school staff and administrators assigned to handle the

behavior incident; resources of mental health and social services; resources for alternative placement of perpetrators; and law enforcement involvement. SEL programs may also reduce long-term costs such as those associated with welfare and incarceration, and increase the amount of state and federal taxes paid by individuals with higher educational attainment and improved job skills (Belfield et al., 2015). However, there is a need for additional studies related to financial and logistical factors associated with the adoption of a school-based program, including the formation of partnerships and the development of an infrastructure to support the technical, financial, administrative, monitoring, evaluative, and logistical needs related to the program (O'Connell, Boat, & Warner, 2009).

Researchers have suggested that anticipating and resolving financial and logistical challenges (e.g., restructuring schedules to add time for SEL instruction and teacher planning time; paying for substitute teachers during staff training) are key responsibilities of the school principal and administrators. Experts have suggested that schools assemble a steering committee or leadership team comprising school staff and other stakeholders from the school and the community to oversee these aspects of implementation. The steering committee can develop implementation plans, develop partnerships with community-based organizations and local businesses with the help of the school district office, and adjust plans and policies based on routine monitoring of implementation (Devaney, O'Brien, Resnik, Keister, & Weissberg, 2006; Fixsen, Blase, Metz, & Van Dyke, 2013).

Program implementation is often at its best during the performance period of grants received from federal, state, or private funding streams. Assuming that it typically takes 2 to 5 years to build full capacity for systemic SEL implementation (Devaney et al., 2006), without sound sustainability plans, schools are at risk of not seeing the full benefits of their investments until after the performance period ends, in spite of the evidence of strong returns on investment (e.g., Clarke, Morreale, Field, Hussein, & Barry, 2015). Sustaining programs after their funding ends depends on teacher, principal, and district commitment to implement SEL practices with quality; implementation support; adequate staffing; and the ability to adapt the program to the local context while minimizing countervailing pressures (Osher et al., 2014a; Tibbits, Bumbarger, Kyler, & Perkins, 2010; Wanless, Groark, & Hatfield, 2015). Sustainability planning should begin with program installation in order to start institutionalizing practices and processes from the outset (Shediac-Rizkallah & Bone, 1998). Long-term, effective implementation of SEL programs requires alignment with other key components of schooling, including learning standards, other programs and services, assessment practices, and teacher PD, as well as the identification of sources for ongoing financial support for implementation (Price, 2015).

DISCUSSION

The rapid accumulation of research evidence over the past two decades indicates that under the right conditions schools can effectively promote the development of

students' SEL skills, and that SEL is associated with reduced involvement in risk-taking behaviors and increased success in academic and well-being outcomes. Contributions of SEL research and advancements in statistical methodologies and research design have contributed to researchers' ability to produce valid information about the value of SEL (MacKinnon & Lockwood, 2003; National Research Council, 2009). While the field has come a long way, we need to better understand the complex processes and systems through which SEL programs can be effectively adapted to new cultural, linguistic, and socioeconomic groups and sustained on a large scale (Spoth et al., 2013). Effective universal SEL programs are comprehensive, developmentally and culturally appropriate, evidence-based, systemic, and forward thinking.

Several notable gaps in SEL research remain, which limit investigators' and policymakers' ability to fully utilize the research findings. These gaps include (a) the need for practical, reliable, and valid assessments of specific SEL skills; (b) limited knowledge about effective leadership practices to promote teachers' buy-in and quality of implementation; (c) limited knowledge about how to better align SEL with other school efforts; (d) a need to clarify terminology and align language and frameworks; and (e) a need to translate research into practice, among other issues.

Assessing SEL Development

The field needs practical measures with psychometric evidence that enable comparisons among studies and samples that can replace or supplement self-reports, teacher reports, and indirect measures of social and emotional skills (e.g., disciplinary infractions). As noted by McKown (2015), assessment of social and emotional skills should examine both knowledge (i.e., children's comprehension of social and emotional information; reasoning and decision-making abilities), and children's abilities to execute the skills (i.e., the ability to regulate emotions, expressions, communications, and other behaviors and perform goal-directed behavior). There are few SEL assessments with strong psychometric properties (e.g., reliability, validity) that assess both types of skills. There is also a lack of normed-referenced or standardized measures of social and emotional skills that can be used by trained professionals (e.g., school psychologists and social workers) to compare a student to a specified population (e.g., by age group), with respect to the skill being measured. Although some SEL measures show promise (Atkins-Burnett, Fernandez, Akers, Jacobson, & Smither-Wulsin, 2012; Child Trends, 2014; Denham, Ji, & Hamre, 2010; Haggerty, Elgin, & Woolley, 2011; Humphrey et al., 2010; Lippman, Ryberg, Carney, & Moore, 2015; Philliber Research Associates, 2013a, 2013b; Stecher & Hamilton, 2014), they are limited (Denham, Bassett, Sirotkin, Brown, & Morris, 2015), and typically measure a narrow set of skills, focus on a particular age group, and mostly assess comprehension or execution. These limitations, along with the lack of use of common measures, impede researchers' ability to combine results across studies.

These same limitations, along with the burden of administering assessments, limit practitioners' ability to use formative SEL data to improve their practice. They need

tools that enable easy assessment of students and that do not place an undue burden on scarce financial and time resources or reduce students to a "score." Practicality includes the ability of measures to support progress monitoring to effectively guide practice and support teachers' efforts to enhance students' social, emotional, and academic growth. This gap may start to be addressed by the Work Group to Establish Practical Social-Emotional Competence Assessments that is being convened in 2016–2017. It will include over 60 researchers and practitioners who will work together to develop a framework that provides guidance about which intrapersonal and interpersonal competencies are most important to measure, how to best measure them, and how to use data effectively to inform planning and practice (Weissberg et al., 2015).

Leading an SEL School

Limited research exists on effective practices to promote teachers' buy-in and quality of implementation or to promote educational leadership practices that effectively advance quality of implementation. While researchers have established that teachers need training, coaching, and other regular supports in order to effectively implement SEL programs (Davies & Cooper, 2013), there is little information about what school and district administrators should do to ensure successful implementation (Brackett & Patti, 2016). The ongoing evaluation of an eight-district demonstration is developing evidence of how practices and policies of the district and school-level leadership can support SEL implementation in diverse contexts (Osher et al., 2014a, 2014b).

Aligning With School and District Efforts

The third gap involves how SEL can practically align with and support other school, district, and state efforts that involve improving academic performance while reducing the achievement gap and exclusionary discipline practices. There is a competition for both educators' and student's time, and we need to learn which high-leverage strategies or practices can be easily mastered by educators, integrated into their practices, and employed regularly (Jones & Bouffard, 2012). Likewise, tools that have been developed for teachers to use for assessing both their own SEL competencies and methods of integrating SEL strategies into pedagogy also need to be validated (Yoder, 2014). Ways of supporting teachers' effective use of these strategies and tools also need to be researched and validated (Osher, 2012). Research can help determine whether certain practices, strategies, or tools accelerate uptake and institutionalization of SEL, and whether their effective employment helps programs realize larger effect sizes than those already realized by existing programs. Moreover, there is a need to efficiently align widely adopted student support interventions (e.g., Positive Behavioral Interventions and Support and Restorative Practices) in a manner that creates synergies while addressing differences (Bradshaw, Bottiani, Osher, & Sugai, 2013; Osher et al., 2008; Osher et al., 2010).

Aligning Frameworks and Language

Advances in the biological sciences suggest that social and emotional skills are likely to have neurobiological and neuroendocrinal roots that are affected by children's contexts (including epigenetically) and affect children's expression of social and emotional skills (e.g., Blair & Raver, 2014; McEwen, 2016; McEwen et al., 2015). However, these social and emotional skills are expressed differently at different developmental stages as well as in different cultures and contexts.

Social and emotional skills are also conceptualized differently across disciplines. Although specialization is helpful, we also need alignment. We need to align and, where possible, conciliate different frameworks, both in SEL and between SEL and related areas. This alignment should be done through the lens of creating a clear and common language for practitioners. For example, the generic use of the term *noncognitive* to describe factors that include cognitive components (e.g., self-regulation), while grounded in the history of behavioral economics, can be confounding.

It is also necessary to better align related frameworks that interact with SEL, including trauma, resilience, youth development, restorative practices, Positive Behavioral Interventions and Support, character education, cultural competence, school climate, conditions for learning, and deeper learning. Efforts to align these frameworks can also address the fact that discourse and practice sometimes conflate and at other times ignore the relationships between and among many approaches and the dispositional factors that affect the development and expression of social and emotional skills, including the amplification and attenuation of the skills. Examples of the dispositional factors include mindfulness, executive function, self-regulation, grit, perspective taking, and growth mind-sets, as well as aspects of personality and temperament such as impulsivity.

Translating Research Into Practice

Although dissemination of SEL practices and programs is important, risks can occur when nuanced scientific ideas become popularized in a manner that ignores conceptual nuance and when policy fails to address the root causes of social problems (e.g., Nickerson et al., in press; Osher et al., 2015) as well as when practitioners lack the training to implement new practices (Coburn, 2002; Cohen, 1990). Grit and CSC provide examples. While nuanced research on grit suggests that it can be measured and is associated with academic attainment and life success (Credé, Tynan, & Harms, 2016; Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Quinn, 2009, Eskreis-Winkler, Shulman, Beal, & Duckworth, 2014), it has become popularized by nonresearchers as a silver bullet in ways that do not address its relationship to context and to other social and emotional factors. Similarly, although a What Works Clearinghouse (2007) review of CSC found potentially positive effects on student behavior, implementation research suggests that its impact (like that of other interventions) is moderated by whether teachers have a deep understanding of why it works (Coburn, 2002; Cohen, 1990).

Other challenges include cultural insensitivity, devaluing the importance of ecology, and ignoring implementation and dissemination challenges. SEL is not a cure-all for ameliorating educational problems. Similarly, while SEL might help some individuals better navigate the barriers created by institutionalized racism and structural inequality, it does not eliminate them. Failure to address these and other ecological factors such as power, privilege, and hegemony can lead to victim-blaming approaches (Ryan, 1972), which can and will be critiqued (e.g., Hoffman, 2009; Ris, 2015). Culture will affect uptake of interventions, assessment, and outcomes. Although SEL appears to have an appeal that includes Southeast Asia, South Asia, South Africa, and Latin America (e.g., Kam, Wong, & Fung, 2011), it has been conceptualized in an individualized manner that can limit its appeal. In addition, most SEL program evaluations have not disaggregated program effects by race, ethnicity, intersectionality, and context, limiting their ecological validity.

Finally, the successful implementation of evidence-based practices requires individual motivation, individual and organizational capacity (including adult cultural competence social and emotional skills), supportive policies, and attention to the affective and cognitive challenges involved in changing practices as well as addressing the challenges posed by new contexts and the need to adapt programs once implemented (Chambers, Glasgow, & Stange, 2013; Dymnicki et al., 2016).

CONCLUSION

U.S. educators are tackling both promotive and preventive issues that in some ways are similar to those confronted by educators one hundred years ago. Promotive issues include engaging, personalizing, and educating children and youth so that they can (a) succeed academically, socially, and emotionally in what is experienced as a rapidly changing world; (b) be active and responsible citizens; and (c) develop problem-solving, critical-thinking, and social skills (Kliebard, 1986). Prevention efforts include preventing social problems such as school dropout, delinquency, substance abuse, and the extent to which poor education, lack of access to quality education, and disadvantage sustain or amplify inequality (Duncan & Murnane, 2011; Lazerson, 1971; Rothstein, 2004).

The need for SEL may even be greater now owing to the impacts of digital technology on learning, work, and interpersonal relationships, and the increasing challenges associated with inequality, global warming, and population growth. But fortunately, due to multiple developments in the field that have been reviewed in this chapter—including innovations in SEL programs and sustainability, research frameworks and methods, and effective dissemination of data and the knowledge gained from it—the field is in a better place than ever before.

Policy around SEL is also promising due to the dissemination of research on the benefits of SEL for youth and to the lessons learned from the inability of either test-driven improvement or a narrow focus on academic instruction to improve educational outcomes. The new policy environment includes provisions in the

revised Elementary and Secondary Education Act, the Organisation for Economic Co-operation and Development's (2015) interest in measuring social and emotional skills, and state and district development of SEL standards (Dusenbury et al., 2015). Both the Elementary and Secondary Education Act and Organisation for Economic Co-operation and Development's Skills for Success work expand the conceptualization of what is counted and reported, while SEL standards provide a focus for integrating academics and SEL.

Finally, a number of ongoing national efforts can focus future research and help make quality SEL part of every child's education. These include The National Commission on Social, Emotional, and Academic Development, which has been convened by the Aspen Institute to create a framework to help accelerate research and practice related to SEL; a national workgroup on SEL assessment that involves many prominent researchers and practitioners, a translational research agenda on SEL and school climate supported by the Robert Wood Johnson Foundation, and an interdisciplinary work group convened by American Educational Research Association to develop a research agenda on schools, rules, and socialization. These efforts and related local, state, national, and even international initiatives provide an opportunity to address and transform the grammars of schooling and instruction, produce more equitable outcomes for students, and most important, better equip all students to handle life's challenges; build and maintain quality relationships; thrive personally, collectively, and professionally; and become engaged citizens.

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NOTE

[1]The improvement index is the expected change in percentile rank for an average comparison-group student if the student had received the intervention (What Works Clearinghouse, 2014).

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