Social Emotional Learning in Middle School: Developing Evidence-Based Programs

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Abstract

This article focuses attention on a critical need for more evidence-based social emotional learning (SEL) programs for middle school students. First, we explore the definition of SEL, pointing out how it has evolved as our world has changed. We review key SEL domains and skills and describe universal school-based SEL programming as one approach to fostering students' SEL competencies. We highlight the ongoing need for evidence-based middle school SEL programs by demonstrating how few programs meet the rigorous What Works Clearinghouse (WWC), Collaborative for Academic, Social, and Emotional Learning (CASEL), and Blueprints standards for evidence. We extend our summary of these programs by noting that even when positive effects have been demonstrated, these effects were often observed in a single domain, such as substance use, or outnumbered by null effects, which undermines efforts to understand program effectiveness. We conclude by considering the unique developmental needs of early adolescents and providing recommendations for the development or refinement of SEL programs that target middle school students.

Overview

Over the past 2 years, social and emotional learning (SEL) has emerged as a topic of critical interest to schools across the country. The challenges of the COVID-19 pandemic, racial injustice, school violence, negative impacts of social media, and climate change are among the many issues sparking anxiety, depression, and lack of a sense of belonging and connectedness among today's youth (Office of the Surgeon General, 2021). As schools and districts consider how to assist students and staff, interest in SEL has surged. The well-researched benefits of SEL for students, which this paper will expand on later, include improved social relations, psychological well-being, and academic outcomes.

Schools and districts are making major investments in SEL programming. A recent report indicated that nationwide school district spending for SEL programs grew from $530 million in 2019–20 to $765 million in 2020–21, an increase of 45% in just 1 year (Tyton Partners, 2021). A nationally representative survey of educators in July 2021 revealed that an overwhelming majority of educators (84%) believe that incorporating SEL programming into the school curriculum has become even more important since the pandemic (McGraw Hill, 2021). A 2021 Education Week Research Center survey indicated that an increasing number of secondary school leaders are joining elementary school leaders in recognizing the need for evidenced-based SEL programming (Education Week, 2021). To illustrate, between March 2020 and September 2021, the percentage of district leaders who indicated that they were placing "a lot" of focus on SEL programming for students in kindergarten remained relatively constant (56% to 59%). Slight increases were observed in grades 1–3 (51% to 58%) and grades 4–5 (49% to 58%). By comparison, dramatic increases were observed in grades 6–8 (38% to 56%) and 9–12 (31% to 53%). Importantly, however, compared with the number of evidence-based SEL programs available for elementary students, far fewer are available for middle and high school students, and of those that are available, few have been evaluated for effectiveness.

Key Findings

- Early adolescence is a critical period for social and emotional development. However, only a limited number of evidence-based social emotional learning (SEL) programs are available to schools to aid in teaching SEL skills to middle school students.

- Of the programs available for middle school students, many only show evidence in a single domain and often report several null effects, which undermines efforts to understand program effectiveness.

- We recommend the development of new middle school SEL programs that are comprehensive, grounded in theory on adolescent development, and culturally relevant and equitable, consistent with the latest thinking on equity.

In this paper, we aim to shed light on these important issues. We begin by defining SEL and considering the academic, behavioral, and social benefits of students' SEL competencies. We then provide an overview of school-based SEL programs as one approach to fostering students' SEL skills and document the lack of evidence-based SEL programs available for middle school students. We elaborate on early adolescence as a critical developmental period, which underscores the need for SEL programs that are developmentally appropriate and responsive to the needs of middle school students. We conclude with a set of recommendations for improving the next iteration of middle school SEL programs.

SEL Skills: Definition and Relevance to Students' Positive Development

In this section, we examine multiple definitions of SEL from leading academics in the field and discuss how SEL contributes to the positive development of youth.

Definition

Although there are many definitions and conceptions of SEL, the most widely cited definition of SEL is from the Collaborative for Academic and Social and Emotional Learning (CASEL), a research organization that has been a pioneer and leader in the SEL field since the early 1990s. Broadly, CASEL defines SEL as "the process through which all young people and adults acquire and apply the knowledge,

Table 1. Common SEL domains identified by EASEL

Domain	Definition	Example of Specific Skills
Identity	How children understand and perceive themselves and their abilities, such as their knowledge and beliefs about who they are and their ability to learn and grow	• Purpose • Growth mindset • Self-esteem • Self-knowledge • Self-efficacy
Values	Skills that lead children toward being prosocial and productive members of a particular community	• Ethical values • Performance values • Intellectual values • Civic values
Perspective	What influences children in their interpretation and response to events and interactions throughout their day	• Optimism • Enthusiasm • Gratitude • Openness
Social	Skills that give children the ability to accurately interpret other people's behavior, effectively navigate social situations, and interact positively with peers and adults	• Conflict resolution and social problem-solving • Understanding social cues • Prosocial and cooperative behavior
Emotional	Skills and competencies that help children recognize, express, and control their emotions, as well as understand and empathize with others	• Empathy • Perspective taking • Emotion knowledge and expression • Emotion and behavior regulation
Cognitive	The basic cognitive skills required to manage and direct one's behavior toward the attainment of a goal	• Attention control • Working memory and planning • Inhibitory control • Cognitive flexibility • Critical thinking

Source: Jones et al. (2021).

skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions" (CASEL Program Guide, 2022). The CASEL Framework includes five areas of competence: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (CASEL, 2020).

In addition to CASEL, a multitude of other SEL frameworks are available. In an effort to promote greater consistency in the field of SEL, The Ecological Approaches to Social Emotional Learning (EASEL) Laboratory reviewed 40 widely adopted frameworks and identified six common domains of SEL: identity, values, perspectives, social, emotional, and cognitive. Table 1 defines these domains and gives examples of specific skills in each. These skills support individuals' ability to set and achieve goals, manage behavior, and

build and maintain relationships and are essential for success across school, home, work, and community contexts (Jones et al., 2021; Jones & Doolittle, 2017; McKown & Herman 2020).

Transformative SEL

Leaders in SEL research have recently been responding to criticisms that equity and a systems-level understanding of historical disadvantage have been largely absent from traditional SEL programming (Gregory & Fergus, 2017). In 2020, CASEL adopted an equity lens and refined their framework to include "transformative SEL." Transformative SEL aims to cultivate more equitable learning environments that foster a sense of belonging and engagement for all children, including those who have been historically marginalized. To accomplish this goal, transformative SEL addresses root causes of inequity by engaging children and adults in the critical examination of issues such as power, privilege,

prejudice, discrimination, and social justice (Jagers et al., 2019). A recent publication from researchers at the University of Michigan and CASEL point to key principles and classroom-based strategies that centralize equity and reinforce core SEL competencies (Rivas-Drake et al., 2021). Table 2 displays these.

Jones and colleagues (2020) at EASEL provide additional guidance on equitable SEL. Equitable SEL "recognizes the social, political, and economic struggle of all students by: (1) ensuring safe and inclusive learning environments that are respectful and affirming of diverse identities; (2) recognizing and incorporating student cultural values, practices, and assets; (3) fostering positive identity development; (4) promoting student agency and voice; and (5) explicitly acknowledging issues of bias, power, and inequality and working to address them."

Relevance to Positive Development

Extensive research literature demonstrates that students' SEL skills significantly affect their behavior and achievement (Blackwell et al., 2007; Domitrovich et al., 2017a; Farrington et al., 2012; Kendziora & Osher, 2016; Yeager & Walton, 2011), as well as the broader school climate (Domitrovich et al., 2017b; Foster & Bussman, 2008; Joseph & Strain, 2003; Osher et al., 2016). Specifically, studies suggest that SEL competencies promote students' well-being, foster more positive and fewer negative social behaviors and interactions (Guerra & Bradshaw

2008; McKown et al., 2009), improve test scores and grades (Blair & Razza, 2007; Durlak et al., 2011; Weissberg et al., 2015; Zins et al., 2004), and increase high school graduation rates and college attendance (Taylor et al. 2017). Moreover, students who have positive social relationships with their teachers and peers at school are more likely to persevere in the face of adversity and hold positive attitudes about their abilities (Heckman & Kautz, 2012; Jones et al., 2015). Students' SEL skills also support a more cooperative school climate. Cooperative school climates are associated with increased student engagement in school, including lower absenteeism and more positive attitudes toward school and learning (Farrington et al., 2012).

Although much has been learned about the relationship between SEL skills and student growth, we still know little about how SEL programming affects students from historically disadvantaged populations. Recent research identified SEL skill gaps associated with economic disadvantage and race/ethnicity. West et al. (2020) conducted an analysis of trends in growth mindset, self-management, social awareness, and self-efficacy in the eight largest districts in California. They found that economically disadvantaged students and students of color reported lower levels of each of these skills, compared to higher income or White students, with the gaps being largest during middle school.

Table 2. Equity principles and strategies that reinforce social emotional learning (SEL)

Principles	Classroom Strategies
Centering students' lived experiences and identities in SEL instruction (e.g., selecting a SEL curriculum that can be adapted to ensure students' identities, values, and concerns are addressed)	• Supplementing curricular materials to incorporate students' actual experiences • Drawing on current events that students will likely be aware of • Addressing students' immediate emotional needs
Using SEL discussions to validate students' experiences of oppression (e.g., providing opportunities for students to examine experiences of trauma and oppression of communities they belong to or share experiences with)	• Making space for acknowledging traumatic experiences at the community level • Infusing broader social justice issues into SEL topics
SEL instruction as a space for students to use their voice for social justice (e.g., allowing students to call out oppression they or close contacts have experienced)	• Recognizing students as emerging social justice change agents

Source: Rivas-Drake et al. (2021).

Approaches to Fostering SEL in K–12 Schools

School districts and researchers have designed a wide array of universal, school-based SEL programs to promote social, emotional, and academic success (Durlak et al., 2011, 2015; Sklad et al., 2012; Weissberg et al., 2015). Universal school-based SEL programs involve a student-centered approach and can be broadly organized into four categories: skill-focused, academic integration, teaching practices, and organizational reform (Domitrovich et al. 2017b).

- Skill-focused programs explicitly teach SEL skills through the use of free-standing lessons.

- Academic integration programs supplement or replace a curriculum with one that includes embedded SEL content and strategies.

- Teaching practices programs promote student SEL through positive student-teacher relationships, positive peer interactions, and positive classroom climates.

- Organizational reform programs implement strategies and policies across systems (school, family, community) to create opportunities for students to develop SEL competencies.

Across program types, researchers have identified five key features of effective SEL programs: (1) SAFE elements, (2) supportive contexts, (3) adult competencies, (4) equitable practices, and (5) reasonable goals (Durlak et al., 2010; Jones et al., 2021).

1. **SAFE elements.** Effective SEL programs often include four practices, represented by the acronym SAFE: (1) sequenced activities that are connected and coordinated to support skill development, (2) active forms of learning that enable children to authentically practice and refine new skills, (3) focused time devoted to developing personal and social skills, and (4) explicit learning objectives that are clearly defined and specific SEL skills that are directly targeted (Jones et al., 2021).

2. **Supportive contexts.** School and classroom climates support students' SEL development when prosocial norms are established and healthy relationships, instructional support, and positive

classroom management are promoted in a coordinated fashion.

3. **Adult competencies.** To respond effectively to SEL challenges and conflicts, SEL training should include professional development that fosters teachers' own SEL competencies as well as their ability to integrate their SEL and pedagogical skills.

4. **Equitable, culturally responsive, trauma-sensitive, and socially just practices.** Students of all backgrounds and identities benefit from SEL programs that explicitly address cycles of trauma and social, political, and economic inequality by engaging students, families, and community members in culturally competent and responsive practices.

5. **Reasonable goals.** The selection and implementation of SEL programs and activities should be informed by efforts to (a) identify which outcomes are most important to students and adults in the community, (b) understand how SEL skills are linked to those desired outcomes, and (c) define short- and long-term indicators of student growth and progress.

The effects of school-based SEL programs on various student outcomes, including intra- and interpersonal competencies, disciplinary outcomes, mental health and well-being, substance use, academic achievement, and school climate and safety, have been extensively documented in several systematic reviews and meta-analyses (Durlak et al., 2011; Grant et al. 2017; Sklad et al., 2012; Van de Sande et al., 2019). Importantly, as illustrated in Table 3, the overwhelming majority of SEL programs that meet the rigorous quality and evidence standards set by CASEL, What Works Clearinghouse (WWC), and Blueprints are designed for use with elementary school-aged students.

Table 3. Number of K–12 SEL programs that meet CASEL, WWC, or Blueprints standards

Grade Levels	Number of Programs
K–12	57
Elementary (K–5)	36 (63%)
Middle (6–8)	11 (19%)
High (9–12)	10 (18%)

Note: CASEL = Collaborative for Academic, Social, and Emotional Learning; SEL = social emotional learning; WWC = What Works Clearinghouse.

Sixty-three percent of the programs that met quality and evidence standards were implemented in elementary school settings. By comparison, 37% of programs targeted students in secondary education, with 19% focused on middle school specifically. Despite what the disproportionately low number of evidence-based SEL programs developed for middle school students might suggest, early adolescence is a critical period of development that presents tremendous opportunities for fostering students' SEL competence.

The Ongoing Need for Evidence-Based SEL Programs for Middle School Students

The middle school years coincide with early adolescence, a period characterized by prolonged neural development that results in intense biological, cognitive, and behavioral changes. Early adolescents enter puberty, engage in more high-level thinking and complex decision-making, expand their social relationships with peers, and begin to search for and develop a sense of identity (Steinberg, 2008). As a result of delayed maturation within the prefrontal cortex, adolescents gravitate toward reward-seeking and risky behaviors. Early adolescents also encounter changes associated with the transition to middle school. During middle school, there is a greater emphasis placed on instructional time, less emphasis on supportive relationships with teachers, and mounting academic pressures (Steinberg, 2008).

In Table 4, we elaborate on the 11 middle school SEL programs we identified that meet quality and evidence standards established by CASEL, WWC, or Blueprints. An important distinction needs to be made between those programs that are developed to influence specific sets of SEL skills and those that may do so through in-depth instruction on certain topics. Some of the programs we identified were standalone and designed to influence important SEL skills such as self-regulation and resilience (i.e., Second Step, Lion's Quest). Others, like Facing History and Ourselves, provide teaching units and other resources to educators on difficult topics like American Slavery or the Holocaust but are not specifically intended to directly influence specific SEL skills. Programs like these might influence SEL skills indirectly, however,

so it is reasonable to assess such influence. Appendix A lists the specific criteria that CASEL, WWC, and Blueprints use for determining whether a program meets evidence standards. Note that the three standards are quite different and require different pieces of evidence to achieve certification. The WWC and Blueprints standards require either randomized control trial or quasi-experimental evidence of positive impact, whereas CASEL SELect status requires less rigorous evidence.

Although we did identify 11 middle school programs that were designated as CASEL SELect, a deeper review of those programs revealed that they do not seem to have a robust evidence base. Each of the programs included in Table 4 demonstrates that SEL programs can promote positive outcomes among middle school students, but at least two caveats are worth noting. First, in some instances, the number of null effects exceeded the number of significant intervention effects reported. For example, students who participated in the Teen Outreach Program (Moore McBride, Chung, & Robertson, 2016) were less likely to report failing grades and instances of skipping class than their peers in control classrooms. However, no significant effects were observed on measures of school belonging, emotional engagement, behavioral engagement, academic efficacy, or civic duty. Second, nearly a third of studies reported intervention effects on a single outcome: problem behaviors or substance use. Three studies evaluating Second Step: Middle School (Espelage, Low, Polanin, & Brown, 2013), Eduguide (Medhanie & Stezala, 2020), and LifeSkills Training (Botvin, Griffin, & Nichols, 2006) reported reductions in violence, delinquency, or disruptive or aggressive behavior. Another study, evaluating Lions Quest: Skills for Adolescence (Eisen, Zellman, & Murray, 2003), which is the only program that meets both CASEL and WWC standards, relied on substance use outcomes as the sole indicator of program effectiveness. Given the breadth of competencies that fall under the umbrella of SEL, this overly narrow focus on a single type of student outcome hinders efforts to understand program effectiveness. Both of these limitations reflect other researchers' calls for the development and rigorous evaluation of comprehensive middle school SEL programs that are developmentally

Table 4. Middle school SEL programs that meet rigorous quality and evidence standards established by CASEL, Blueprints, or WWC

Evaluation Details			Rating			Evidence in Grades		
Program	Study Design	Significant Evaluation Outcomes	CASEL SELect	WWC Standards Without Reservations	Blueprints Certified Model Plus	6	7	8
Second Step: Middle School	RCT	• Reduction in physical aggression	✓			✓		
Teen Outreach Program	Quasi-experimental	• Reduction in failing grades and skipping class	✓				✓	
Eduguide	Quasi-experimental	• Reduction in class disruptions and incidences of hitting	✓			✓	✓	
Facing History & Ourselves[a]	RCT	• Improvement in prosocial behaviors, empathy, perspective-taking skills, participatory citizenship beliefs, student-teacher respect, and interpersonal relationships • Reduction in conduct problems	✓				✓	✓
Lions Quest[b]	RCT	• Reduction in drug and alcohol use	✓	✓		✓	✓	
Responding in Peaceful & Positive Ways	RCT; Quasi-experimental	• Improvement in life satisfaction • Reduction in disciplinary violations, in-school suspensions, and physical aggression	✓			✓	✓	
Student Success Skills	RCT	• Improvement in standardized test scores in reading and math, school connectedness, feelings of connectedness to classmates	✓				✓	✓
LifeSkills Training	RCT	• Reduction in violence and delinquency		✓		✓		
EL Education	Quasi-experimental	• Improvement in standardized test scores in reading, positive social behavior, teaching practices (English Language Arts instructional practices, strategies that promote student collaboration, and higher-order thinking)	✓			✓	✓	✓
Mosaic	Quasi-experimental	• Improvement in growth mindset, self-efficacy, and sense of belonging	✓			✓	✓	✓
The Leadership Program's Violence Prevention Project	RCT	• Reduction in physically aggressive and antisocial conflict resolution strategies • Reduced decreases in peer-supportive behaviors • Reduced increases in verbally aggressive behaviors, strategies, and beliefs	✓			✓	✓	✓

Note: CASEL = Collaborative for Academic, Social, and Emotional Learning; RCT = randomized control trial; SEL = social emotional learning; WWC = What Works Clearinghouse.

a Facing History and Ourselves was also reviewed by WWC but did not meet standards.

b Only substance use outcomes have been examined in studies implemented in the United States. Additional effects have been documented in non-US samples.

appropriate and responsive to the unique needs of middle school students (Yeager et al., 2015, 2018; Domitrovich et al., 2017a; Jagers et al., 2015).

SEL programming targeting middle school students continues to lag programming for elementary school students. Historically, there has been greater demand for SEL programming in elementary than secondary schools. Elementary schools traditionally emphasize social as well as academic development, whereas secondary schools emphasize academic content. Thus, most SEL programs have been developed for elementary schools; however, as we have outlined, the middle school years are a critical social development period for adolescents.

A lack of well-designed studies examining middle school student programs across grades has been noted before (e.g., Domitrovich et al., 2017a), but, as we show, little progress seems to have been made toward identifying evidence-based programs for this age group. One reason may be the logistical challenges and costs associated with rigorously testing programs across multiple middle school grades, classrooms, and outcomes. However, we can envision, for example, multisite cluster randomized control trial (MCRT) studies that are properly powered and experimentally examine outcomes at each middle school grade. We have done our own power analysis in the MCRT setting and have found that a reasonable minimally detectable effect size is possible with 30 schools and four classrooms per school across 6th, 7th, and 8th grade. Therefore, we are skeptical that design challenges are behind the lack of evidence-based middle school programs. The primary reason is likely that there are few well-developed programs currently ready for efficacy testing. In the next section, we provide some guidance for the development of new middle school programs.

Designing Developmentally Appropriate SEL Programs: Early Adolescence as an Example

Designing developmentally appropriate SEL programs requires an understanding of the unique challenges students face at different points in development.

Nagaoka and colleagues (2015) considered four questions to identify the key developmental changes and goals associated with different stages of development. In Table 5, we summarize their conclusions related to early adolescence to illustrate how a developmental framework can inform the design and delivery of effective SEL interventions in middle school.

Nagoka et al.'s (2015) developmental perspective aligns with stage-environment fit theory, a much older theoretical framework in psychology and education. Stage-environment fit theory offers a developmental perspective on the interaction between characteristics of the individual and their environment. According to stage-environment fit theory, students do better when their environments are aligned with and responsive to their developmental needs. Denham (2018) applies this concept specifically to SEL and argues that developmental tasks are the foundation upon which SEL frameworks, standards, instruction, and assessment must be built. Although the domains and specific SEL competencies remain constant across development, the specific content and instructional approaches of SEL programming should be tied to the key developmental tasks that students face in each stage of development (Domitrovich et al., 2017a).

To illustrate, consider the social (Jones et al., 2021) or relationship skills (CASEL, 2020) domain in the context of early adolescent development. Given the ascendance of the peer social context, developmentally appropriate SEL programming may include activities that foster conflict resolution strategies such as active listening, working collaboratively toward constructive solutions, and compromise. These strategies capitalize on early adolescents' increasing ability to engage in abstract thinking and perspective taking and also support their growing need for independence by modeling how to build and sustain positive peer relationships. Instructional practices that value students' voice and prioritize group-oriented forms of active learning (e.g., role play) over didactic lecturing give students authority over their learning. Self-reflection and self-assessment exercises let students evaluate which strategies work well for them and

Table 5. Key developmental tasks in early adolescence

What internal or external changes are taking place that influence development in early adolescence?	What are the primary areas of development in early adolescence?	How do experiences shape development in early adolescence?	How is development in early adolescence related to development in other stages?
• Improvements in reasoning, information processing, and executive function skills (e.g., cognitive flexibility, planning, metacognition). • The peer social context is very influential during middle school as early adolescents use peers to explore identity development. • Social status becomes important, and "fitting in" among peers is a priority.	• Group-based identity development contributes to establishment of social networks and social norms, which is key as early adolescents seek autonomy from adults and agency outside of the home. • Beliefs and attitudes about the external world, oneself, and interactions between the two begin to emerge. • Performance is increasingly attributed to ability, not effort. • Self-efficacy and self-esteem in particular are influenced by peer support and adjustment in school.	• Cognitive and social changes associated with early adolescence influence how students respond to educational environments and experiences. • Early adolescents are more likely to engage in experiences that are responsive to their increasing need for autonomy and expanded interactions with peers and offer opportunities to participate in complex forms of thinking, communicating, and problem-solving.	• Peers' powerful influence on early adolescents' identity development, coupled with developments in abstract thinking, increasing awareness of the self in relation to others, and emerging personal beliefs and attitudes, sets the stage for increased agency and recognition and integration of various "selves" or identities in middle adolescence and young adulthood.

Source: Nagaoka et al. (2015).

which strategies need to be modified to be effective. These exercises also encourage students to identify personal strengths and areas for improvement. SEL programming will facilitate positive growth and development if it affords middle school students experiences and opportunities that (1) align with their current developmental needs by honoring their increasing desire for identity, autonomy, and acceptance; (2) prepare students with knowledge and skills in anticipation of future developmental needs; and (3) promote increased fit between students and the educational and social environments they are embedded in (Yeager et al., 2018).

Summary: Necessary Directions for Middle School SEL Programs

Our goal in this paper is to encourage SEL program developers to think carefully about and design programs that are responsive to the unique needs of the middle school population. We conclude by summarizing three key future directions for developing evidence-based middle school programs.

Develop More Comprehensive Programs

To fully benefit middle school students, SEL programs should aim to be more comprehensive in scope. This includes both teaching multiple SEL skills and assessing students' competencies across core SEL domains. Of the 11 evidence-based middle school SEL programs described in Table 4, seven programs reported significant student outcomes related only to problem behaviors (e.g., skipping class, verbal and physical aggression, drug and alcohol use) and academic performance (e.g., failing grades, standardized test scores). In contrast, only four programs reported significant effects on students' sense of belonging, self-efficacy, and prosocial behaviors. Although violence, substance use, and academic performance are important evaluation outcomes, the current prioritization of these outcomes provides an incomplete picture of the broader SEL landscape. This pattern, coupled with the absence of any evidence of effect of students' identity development and agency, one of the primary developmental goals of early adolescents, underscores the need for comprehensive and developmentally appropriate SEL programming for middle school.

Ensure Alignment to the Developmental and Academic Needs of Middle Schools

Middle school students face numerous challenges that accompany adolescence, and as such, SEL programming targeting these students begins with a solid understanding of and adherence to the unique developmental stages of these students. Innovative programs should (1) align with the developmental needs of middle school students by honoring their increasing desire for identity, autonomy, and acceptance; (2) prepare students with knowledge and skills in anticipation of future developmental needs; and (3) promote increased fit between students and the educational and social environments they are embedded in. Because middle school students are undergoing profound developmental and academic changes, SEL programs intended for elementary school students are poor substitutes for well-developed programs that align specifically with middle school students' unique needs.

Middle school teachers could also benefit from the integration of SEL programming with academic subjects. Burden is an often-discussed aspect of teaching, and not surprisingly, teachers may be resistant to programming that adds to their academic instructional tasks. Furthermore, middle school students change classes throughout the day, so SEL integration within a core literacy or math class will reach all students throughout the day. The benefits of SEL programming are well-chronicled; however, many of the available programs do not easily integrate into existing school instruction in academic subjects. We think that integrating SEL skill development more into core subjects, such as literacy, would reduce teacher and school burden and therefore improve students' chances for success.

Ensure Programs Are Culturally Relevant and Incorporate Equity

The next iteration of SEL programs should be consistent with recent updates to the definition of SEL. One approach to accomplishing this is for program developers to intentionally incorporate the CASEL transformative SEL definition and emphasize the development of identity, agency, belonging, curiosity, and collaborative problem-solving for all students. In prior sections, we have reviewed some key principles and classroom strategies that promote key SEL competencies. Equitable SEL programs should focus on students' lived experiences, validate their experiences of discrimination, and allow space for students to use their voice. Furthermore, new programs should be developed with a transformative SEL lens in mind by ensuring that programs are feasibility and usability tested with students from marginalized backgrounds. When it comes time for evaluating new programs, researchers should, at a minimum, develop research designs that allow for an examination of effects by important subgroups, such as students from low-income families and other historically disadvantaged groups. Only then will it be known which programs work for which subsets of students.

Among our primary goals in this paper is encouraging the development of more middle school SEL programs and thus broadening the number of interventions where there currently are few. We sought to provide researchers and program developers with important suggestions as they conceive of new SEL interventions. We hope this paper contributes meaningfully to those efforts.

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Appendix A. CASEL SELect, WWC, and Blueprints Evidence Criteria

CASEL SELect[a]	What Works Clearing House (WWC)— Without Reservations[b]	Blueprints for Healthy Youth Development (Blueprints) Promising, Model, and Model Plus[c]
The designation indicates that a program promotes students' social and emotional competence in a SELect category, provides opportunities for practice, offers multiyear programming, and delivers high-quality training and other implementation supports. Student outcomes that fall into the SELect category: • Improved positive social behavior • Reduced problem behavior • Reduced emotional distress • Improved student-reported identity/ agency • Improved school connectedness • Improved school climate	Study must be a randomized control trial with low levels of sample attrition. Individual-level assignment studies must also satisfy two additional requirements: • Examine at least one eligible outcome measure that meets four review requirements: (1) demonstrates face validity, (2) meets reliability standards, (3) is not over-aligned with the intervention, and (4) collects outcome data in the same manner for treatment and control conditions • Be free of confounding factors	Programs that receive a "Promising" designation meet the following criteria: • Intervention specificity: intervention description clearly identifies the intended outcome(s), whether specific risk and/or protective factors are targeted to produce this change, the population for which the intervention is intended, and how the components of the intervention work to produce this change (Theory of Change or Logic Model). • Evaluation quality: evaluations produce valid and reliable findings. This requires a minimum of (a) one high-quality randomized control trial or (b) two high-quality quasi-experimental evaluations. • Intervention impact: preponderance of evidence from the high-quality evaluations indicates a significant positive change in intended outcomes that can be attributed to the intervention and there is no evidence of harmful effects. • Dissemination readiness: The intervention is currently available for dissemination and has the necessary organizational capability, manuals, training, technical assistance, and other support required for implementation with fidelity in communities and public service systems.
		Model Programs meet "Promising" criteria and the following: • Replication: A minimum of (a) two high-quality randomized control trials or (b) one high-quality randomized control trial plus one high-quality quasi-experimental evaluation. • Long-term follow-up: Positive intervention impact sustained for a minimum of 12 months after the program intervention ends.
		Model Plus Programs meet "Promising" and "Model" criteria and the following: • Independent Replication: At least one high-quality study demonstrating desired outcomes; authorship, data collection, and analysis have been conducted by a researcher who is neither a current or past member of the program developer's research team and who has no financial interest in the program.

Note: CASEL = Collaborative for Academic, Social, and Emotional Learning; SEL = social emotional learning; WWC = What Works Clearinghouse

a From CASEL: https://pg.casel.org/connect-your-criteria/

b From WWC: https://ies.ed.gov/ncee/wwc/Resources/Evidence OR https://ies.ed.gov/ncee/wwc/Docs/referenceresources/wwc_info_rates_061015.pdf

c From Blueprints: https://www.blueprintsprograms.org/blueprints-standards/