Promoting Social and Emotional Learning in the Middle and High School Years

This issue brief, created by The Pennsylvania State University with support from the Robert Wood Johnson Foundation, is one of a series of briefs that addresses the need for research, practice and policy on social and emotional learning (SEL). SEL is defined as the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

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Executive Summary

Adolescence is a critical period to invest in young people's social-emotional competence (SEC). SEC is essential for youth to succeed in school, work, and civic life, so supporting its development is an important component of a public health approach to education. This brief provides an overview of frameworks that define SEC, and reviews the current landscape of universal school-based programs designed to promote its growth in middle and high school students. Social and emotional learning (SEL) programs in secondary schools use various strategies to promote SEC through healthy youth-adult and peer relations, curricula, and structural adaptations.

SEL programs can be organized into four categories based on their primary approach to fostering SEC: skill-focused promotion, academic integration, teaching practices, and organizational reform. SEL programs aimed at adolescents have received both less attention and less extensive research than those focused on the elementary years. The research that does exist indicates that the effects of SEL on adolescent development appear to be important, but somewhat smaller than those of programs for younger children. This suggests that there may be ways to innovate to improve outcomes for youth. To do so, SEL programs should leverage the unique developmental needs of young people during adolescence, including their search for purpose and identity, the importance of peer relations, their attitudes towards themselves and others, and their meta-cognitive abilities. Program developers should also consider the biology and social dynamics of adolescents as they develop the content and structure of programs.

Research on the effects of SEL strategies is promising, but more support is needed to create long-term research-practice partnerships, and more rigorous research to expand the number of effective SEL programs that are available at the secondary level. Additional research also is needed to validate SEC frameworks in adolescence and to identify the most effective ways to support SEL systematically in secondary schools.

Introduction

This brief reviews the current knowledge of school-based programs designed to promote adolescent social-emotional competence (SEC). SEC is reflected in the knowledge, skills, and attitudes that young people need to manage thoughts and emotions constructively, regulate their actions, nurture a strong sense of personal and cultural identity, collaborate and resolve interpersonal conflicts, and cultivate healthy relationships.[1,2] Research in adolescence has shown the fundamental importance of SEC in promoting school engagement, post-secondary completion, and workplace success.[3] Secondary schools have an opportunity to positively influence adolescent development if they actively engage in promoting SEC.

Social-emotional learning (SEL) describes the process through which SEC develops. SEL programs use a range of strategies to achieve this goal but most are built around the core belief that SEC grows out of positive youth-adult and peer-to-peer relationships.[4] In this brief, we describe and give examples of four categories of SEL programs. We also provide an overview of the common strategies used across programs to promote SEC.

In the United States, the introduction of SEL in education has primarily taken root in elementary schools. Yet adolescence is an equally critical period to invest in young people's SEC. The rapid physical, emotional, and cognitive changes that characterize this period provide unique opportunities to develop and practice SEC.[5] During adolescence, young people begin articulating their beliefs and values, experimenting with new interests, and expanding their social relationships. At the same time, enhanced cognitive abilities allow them to reflect on themselves and others more deeply, engage in more complex decision-making, and critically analyze the impact of their choices.[6] In adolescence youth also experiment with risky behaviors and face new challenges, including peer pressure, the negative influence of social media, and increased academic pressure, which present substantial challenges as well as opportunities for growth.[7]

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There are substantial contextual challenges to integrating SEL programming into secondary schools: Students make multiple classroom moves throughout the day, there is greater curricular variation, increased academic focus, and limited time for "non-academic" programming. To redress these issues, SEL programs for secondary students often leverage system-level strategies aimed at creating a positive classroom and school climate that supports SEC *as well as* more direct student-level strategies to promote specific attitudes and skills.[8] These efforts also are of interest to educators and policy makers as they build inclusive environments free from hate and bias, thereby promoting equity and reducing disparities for students of color.[9]

The Collaborative for Academic, Social, and Emotional Learning (CASEL) defines five core social-emotional competency clusters.[22]

Self-Awareness

The ability to accurately recognize one's emotions and thoughts as well as their influence on behavior. This includes accurately assessing one's strengths and limitations, having a growth mindset, and possessing a well-grounded sense of confidence and optimism.

Self-Management

The ability to regulate one's emotions, thoughts, and behaviors effectively in different situations. This includes managing stress, controlling impulses, motivating oneself, and setting and working toward achieving personal and academic goals.

Social Awareness

The ability to take the perspective of and empathize with others from diverse backgrounds and cultures, to understand social and ethical norms for behavior, and to identify family, school, and community resources and supports.

Relationship Skills

The ability to establish and maintain healthy, mutually rewarding relationships with diverse individuals. This includes communicating clearly, listening actively, cooperating, resisting inappropriate social pressure, negotiating conflict constructively, and seeking and offering help when needed.

Responsible Decision-Making

The ability to make constructive and respectful choices about personal behavior and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions, and the well-being of self and others.

Frameworks for Defining Social–Emotional Competence

The field of adolescent development includes frameworks that define SEC specifically, and broader frameworks that include SEC as one of the essential developmental domains.[10,11,12,13,14] Collectively, these frameworks name and operationalize the critical elements that define SEC and link it to other aspects of adolescent development.

There are several frameworks that define SEC in the field of adolescent development. These often distinguish between intrapersonal and interpersonal competencies. There are also frameworks that define the SECs needed for success in specific domains (i.e., academic) and contexts (i.e., workplace).[15,16] Comparisons of these frameworks reveal significant similarity in the key role played by SECs. Beyond specific SEL-defining frameworks, SECs are a central feature of every model of positive youth development and resilience.[17,18,19]

In longitudinal studies, there are strong associations between *specific* SEC competencies (e.g., empathy, perspective-taking) and a range of positive adjustment outcomes, including academic success, physical and mental health, and healthy relationships with adults and peers.[20] Further, the absence of SECs is linked to higher rates of mental health, criminal justice, and substance use problems.[21] However, few studies have examined how SECs during adolescence predict long-term adult outcomes.

Effective Programs and Strategies Used in Secondary Schools

SEL programs can be organized into four categories based on their primary approach to fostering SEC: **skill-focused promotion**, **academic integration**, **teaching practices**, and **organizational reform**. In this section, we review exemplar programs of each type and briefly review selected research findings. The development of SEC is rooted in "developmental relationships" that are characterized by: (a) reciprocity, where there is a give-and-take between all people in the relationship, (b) progressive complexity, that challenges youth to practice, develop, and refine SECs, and (c) a gradual shift in the balance of power that favors youth as they learn new skills, such as decision-making.[23,24] Young people report that their positive relationships with both adults and peers create these kinds of learning opportunities.[25]

Skill-focused promotion programs typically provide explicit instruction on SECs through the use of freestanding lessons that follow an organized scope and sequence. More comprehensive models, such as *Lions Quest Skills for Adolescence*[26] and *Second Step*,[27] cover a broad set of skills and attitudes and content is usually delivered over multiple years. Such programs encourage student engagement in discussion and personal discovery as opposed to didactic lecturing. Role-playing is an important "active learning" element of lessons that help students understand and internalize concepts. Strategies to promote skill generalization range from simple activities such as using a self-calming technique or writing personal goals to more extensive efforts to monitor one's progress over time.

In an evaluation of *Second Step*, middle school participants reported significantly lower levels of physical aggression at post-test (nine months after baseline) compared to students in the control group.[28] Studies of *Lions Quest Skills for Adolescence* also support its effectiveness: Middle school participants reported lower levels of drug use, more positive self-perceptions of their own self-efficacy to refuse offers of drugs and alcohol, and more positive perceptions of their own social skills compared to students participating in the control group.[29,30]

Some promotion programs promote SEC while targeting the reduction of risky behaviors. For example, *Life Skills Training* (LST)[31] is designed to prevent substance use, and *Responding in Peaceful and Positive* Ways (RiPP),[32] is designed to prevent violence and empower adolescents to manage challenging situations associated with risky behavior (e.g., peer pressure, boredom, and isolation). LST is one of the most extensively researched drug prevention programs, with numerous studies documenting the program's success in reducing a range of risky behaviors (e.g., drug use, violent behavior and delinquency) among middle school students.[33] Several studies of RiPP with middle school students have found that participants report less drug use and fewer conduct problems immediately following the intervention, and reduced social problems one year later compared to students who do not receive the program.[34,35,36]

There are also promotion programs tailored specifically for students of different ethnic or racial backgrounds. These programs are rooted in unique cultural experiences and an understanding of the risk and protective factors related to race and culture. One example is the *Aban-Aya Youth Project* SEL curriculum based on principles that promote African-American cultural values and culturally based teaching methods (e.g., story-telling).[37] There is one evaluation of *Aban Aya* that was conducted with a diverse sample of urban students in grades 5-8. After four years of exposure to the program, intervention effects were found for boys only on violence, provoking behavior, recent sexual intercourse, condom use, and school delinquency.[38]

The *Becoming a Man* (BAM) intervention, developed by the nonprofit Youth Guidance, is designed to reduce high school students' "automaticity"—that is, the tendency to react automatically as opposed to intentionally in situations.[39] In situations where behaviors that are not acceptable in the school setting may be adaptive in the community, youth need the ability to choose their behavior intentionally. BAM emphasizes that this skill may be particularly important for fostering academic and behavioral success of minority youth who experience greater variability across their social environments. In an evaluation conducted with male high school students in Chicago Public Schools, participants were significantly less likely to be arrested or engage in violent crimes, and more likely to graduate compared to students who did not participate.[40]

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Academic integration programs supplement or replace a standard curriculum with one that includes strategies to promote SEC embedded within it, thus providing a unique approach to SEL. *Reading Apprenticeship Academic Literacy* (RAAL)[41] Course is an example of a curriculum with thematic units in English Language Arts, Social Studies and Science, and *Facing History and Ourselves , Inc.* (FHAO)[42] is a Social Studies curriculum. Both programs use teaching practices as their core strategy to help teachers create a classroom climate that supports SEL. They also incorporate student-level strategies that facilitate reflection, sharing of personal experiences, and listening to classmates. For example, FHAO focuses on historical periods of intergroup conflict that involve racism and prejudice, includes an activity in which students consider their opinions on an issue, line up along a continuum according to where they stand, and then explain their position to the group.

Evaluations of FHAO have been conducted at both the middle and high school level. Middle school student participants reported less problem behavior and more prosocial behavior at post-test compared to students from the control group.[43] High school students had higher levels of historical understanding at post-test and students at both grade levels reported greater perspective-taking, civic self-efficacy and positive classroom climate.[44]

In RAAL, students develop personal goals for reading and are taught problem-solving skills to manage learning challenges during reading and meta-cognition to promote self-awareness and a growth mindset. Two evaluations of the Reading Apprenticeship framework have been conducted with diverse samples of high school students.[45,46] In both studies, participants achieved higher standardized test scores than did students not in the program. Outcomes unique to only one of the studies were higher grade point average and lower rates of office referrals.

Teaching practices programs use strategies designed to foster student SEC through positive classroom or school climate, positive student-teacher relationships, and positive peer interactions. Unlike freestanding lessons, teaching practices do not require time to be allocated to SEL because they are simply integrated into teachers' everyday practice, but they often require significantly more professional development time compared to the average training for skill-focused promotion programs.

EL Education,[47] the Buck Institute model of *Project-Based Learning* (PBL),[48] and the academic integration programs described earlier are examples of this program category. Professional development helps teachers learn to model SEC, interact with students in ways that respect their autonomy, and use instructional methods that promote SEL (e.g., cooperative learning). Many SEL programs that target teacher practices also provide guidance regarding classroom management. In some cases, teachers are provided with procedures (e.g., a problem solving protocol) or interactive activities for students to develop specific skills (e.g., self-regulation).

EL Education and PBL each have one high quality evaluation. The *EL Education* study was conducted with a large sample of primarily Hispanic middle school students. It found that program participants performed better on standardized tests in reading and math than

did non-participants, and that these benefits were maintained three years after the program ended.[49] The PBL study, conducted in a high school economics class, revealed that program participants performed better on a test of economic literacy and problem-solving when compared to non-participants.[50]

Organizational reform programs at the secondary level rely primarily on system-level strategies to promote SEL. These whole school reform models require substantial time and commitment to implement. *EL Education* is one of the most comprehensive organizational programs that uses both student- and system-level strategies.[51] The primary goal of *EL Education* is to raise student achievement by promoting social, emotional, and academic competence through academic integration and a core set of teaching practices used by all staff. Structures and routines at the school level (e.g., teacher looping with students, exhibitions of student work), community-based academic work (i.e., learning expeditions), and school-family involvement are key program strategies.

Table 1 presents some of the most common strategies used in these secondary programs.

Table 1: Strategies that Promote Social-Emotional Learning

Freestanding Lessons	High quality lessons on specific topics are presented. Teaching is more interactive than didactic and involves discussion and practice.
Shared Agreements	Student involvement is used to set goals, norms, or classroom behavioral guidelines to create a positive experience.
Interactive or Reflective Activities	Tasks, games or daily routines create opportunities to practice SEL skills (e.g., social problem-solving steps, reflective journal).
Peer Mentoring	A formal or informal process in which students support one another to enhance connection to peers and/or provide academic support.
Teaching Practices	Teachers use instructional, relationship building, or classroom management practices specifically designed to create a learning environment that promotes SEL.
Schoolwide Policies, Structures, and Supports	Strategies for organizing students into groups to promote students' sense of belonging with both adults and peers (i.e., advisories). Methods for building a sense of school community (e.g., daily announcements) or to support SEL planning, implementation, and sustainability (e.g., creating an SEL leadership team). Policies that create opportunities for students to develop SEC (e.g., discipline that uses restorative practices[52]).
Family and Community Linkages	Strategies that engage parents actively in the life of the school. Strategies that engage students in school- or community-based volunteer work (e.g., cleaning around the school or local park), service learning, or community-based academic work.

Summary of Secondary SEL Program Impacts

Intervention studies document that secondary school SEL programs improve student outcomes but the evidence is weaker than it is for programs with younger students. There are fewer evaluations of secondary programs and the research is of lower quality (i.e., smaller samples, less rigorous designs, limited replication).[53,54]

The impact of a field can be quantified by summarizing the findings across multiple intervention studies using meta-analysis. This involves calculating "effect sizes" (i.e., *the degree of* difference between students who received a program and those who did not) for each study and then combining these across studies.[55] In general, an effect size of less than $d=.20$ is considered small but meaningful, $d=.50$ is considered medium, and $d=.80$ or greater is considered quite large.[56]

Across three meta-analyses in which at least half of students studied were secondary students, effects were examined separately by age of schooling. Since universal SEL interventions serve all students, even those with small to medium effects on expensive outcomes such as school dropout are worthwhile investments that can offset their cost. Effects on social-emotional indicators were strongest for younger students and higher at high school compared to middle school. In the first study, the positive program effects were similar for elementary and secondary students ($d=.67$; $d=.74$).[57] In the second study, effects were highest for young children ($d=.55$) and these were significantly higher than for students in elementary ($d=.12$) or middle school ($d=.19$), but equal to those achieved with students in junior high or high school ($d=.23$).[58] In the third study, which examined whether program impacts were sustained, the effects were largest for the interventions with elementary grades ($d=.27$) compared to middle school students ($d=.12$) or high school students ($d=.18$).[59]

Research findings regarding the grade level effects on behavioral outcomes were mixed. In one study, SEL programs produced greater reductions in antisocial behavior for students in elementary school ($d=-.59$) than in middle and high school ($d=-.25$).[60] However, an analysis that focused on conflict resolution programs found that the effects on antisocial behavior were larger for middle school students ($d=.53$) than for those in high school ($d=.22$) or elementary school ($d=.06$).[61]

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Future Research and Program Development Needs

Universal school-based SEL programs for secondary students promote SEC and improve behavioral outcomes, but the effects are somewhat smaller than those achieved with elementary students. It is difficult from the existing research to determine if this is a function of student developmental status, setting, or program characteristics. One way to improve the effectiveness of SEL programs is to ensure that the strategies being used are developmentally appropriate. Other researchers have made this point, suggesting that successful SEL programs for adolescents should leverage the unique developmental needs of young people during this period (e.g., identity, autonomy, acceptance) and take into account the biology and social dynamics of adolescents in both the content and structure of the program.[62]

Recent research suggests that the intrapersonal dimensions of SEC may be especially important to promote. For example, universal school-based programs that promote mindful awareness through yoga, breathing, brief meditations, and other strategies have been found to help students focus their attention and regulate their emotions. Although research on contemplative education is quite novel, preliminary evidence suggests that these programs have promise for SEL.[63] Similarly, recent work examining the meta-cognitive aspects of SEC suggest that promoting a growth mindset or teaching students about incremental theory of personality improves students' academic, behavioral, and mental health outcomes.[64,65]

Additional research is needed to determine the effectiveness of specific program strategies. This is challenging because it requires component analyses of individual programs which are expensive to conduct. Until this work is done, definitive conclusions regarding the effectiveness of any one type of program strategy (e.g., skills-focused promotion vs. shared agreements) for secondary students is premature.

Further research is also needed to validate frameworks that define SEC across childhood and adolescence. This would help guide interventions by providing a clear sequence for instruction across grade levels.[66] Certain skills, such as conflict resolution, may be more effectively taught in adolescence compared to younger developmental stages. Given the structural challenges SEL programs face at the secondary level, it is critical that programs are efficient and promote the most relevant competencies at the most effective point in time.

The development of SEC does not happen in a vacuum. The context helps create the right conditions for implementing SEL-enhancing strategies. Multi-level studies with sufficient power are needed to determine how features of the classroom and school climate work together to impact the development of SEC. It is also important to understand the role of out-of-school time activities in complementing efforts during the school day to promote SEC. Several program developers have suggested that a combined focus on promoting individual competence and positive learning environments is likely to be the most effective approach to SEL at the secondary level.[67,68]

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Conclusions and Policy Implications

Under supportive conditions, all developmental periods are characterized by growth in SEC. Even though the impact of universal SEL programs conducted with adolescents are smaller than those for younger students, SEC is essential for youth to succeed in school, work, and civic life. Thus, supporting SEC development is an important component of a public health approach to education.[69] As universal programs are framed positively and not stigmatizing, they can prevent multiple problem behaviors that share common risk factors, and they can foster a more positive school climate which can positively influence the norms or behaviors of a whole population. Given the "prevention paradox"—that a large number of people at low risk for a disease may give rise to more cases than the small number who are at high risk—it is critical that schools prioritize and devote resources to comprehensive universal programming. In order to do this, schools need policy makers to advocate for permanent funding to support this work in middle and high schools.

The rapid cognitive, physical, and social changes that are the hallmark of adolescence create unique opportunities to promote students' development, but the potential of this developmental period has not been fully maximized. The scientific community needs the support of policy makers to provide resources for research-practice partnerships and more rigorous research to expand the number of effective universal SEL programs that are available

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Conflict of Interest Statement

Dr. Domitrovich was formerly the Vice President at CASEL where she was responsible for the production of its Secondary Program Review. She was not involved in the coding of any programs that were reviewed because prior to working for CASEL, Dr. Domitrovich conducted an evaluation of *Facing History and Ourselves* with middle school students. Dr. Domitrovich is the author of the *Preschool PATHS Curriculum* and receives royalties from its publication.

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and improve their effectiveness. Researchers should not only focus on conducting evaluation studies but also basic research that identifies **how** SEL programs achieve their outcomes and **why** intervention effects vary across development. Research suggests that leadership and planning, staff buy-in, and training are important factors in predicting implementation quality and outcomes. The findings from this research should be used to guide the development of more innovative program strategies and changes to how middle and high schools are structured.

Schools need to be wise consumers of existing programs and consider what they can realistically expect from a program, what it takes to implement the program effectively, and whether the program is a good match to the needs of staff and students. Once a program is implemented, schools must monitor *how* it is implemented because in educational settings there are many factors that can undermine a program and reduce its impact.[70]

Additional research is needed to help districts coordinate and sustain systemic efforts to support student SEL.[71] There are examples of districts that have included SEC in their definition of a successful student.[72] Many have created SEL standards to guide practice, included measures of SEC in report cards or on-track indicators, and cultivated SEL leadership at the school level with professional development, but formal research on this systemic work is lacking.

SEL programming in middle and high schools is an important and worthwhile investment in the future. To realize the full potential of these efforts, we must design programs that are responsive to the needs of adolescents, engage and collaborate with families and communities, and use findings from research on school climate and structures to inform how America's future middle and high schools are designed so that they support the SEL of all students.

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