# The Positive Impact of Social and Emotional Learning for Kindergarten to Eighth-Grade Students

## Executive Summary

## Findings from Three Scientific Reviews

**CASEL**

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This Executive Summary and a technical report on the three reviews may be retrieved from www.casel.org or www.lpfch.org/sel.

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## Abstract

This report summarizes results from three large-scale reviews of research on the impact of social and emotional learning (SEL) programs on elementary- and middle-school students — that is, programs that seek to promote various social and emotional skills. Collectively the three reviews included 317 studies and involved 324,303 children.

SEL programs yielded multiple benefits in each review and were effective in both school and after-school settings and for students with and without behavioral and emotional problems. They were also effective across the K-8 grade range and for racially and ethnically diverse students from urban, rural, and suburban settings. SEL programs improved students' social-emotional skills, attitudes about self and others, connection to school, positive social behavior, and academic performance; they also reduced students' conduct problems and emotional distress. Comparing results from these reviews to findings obtained in reviews of interventions by other research teams suggests that SEL programs are among the most successful youth-development programs offered to school-age youth. Furthermore, school staff (e.g., teachers, student support staff) carried out SEL programs effectively, indicating that they can be incorporated into routine educational practice. In addition, SEL programming improved students' achievement test scores by 11 to 17 percentile points, indicating that they offer students a practical educational benefit. Given these positive findings, we recommend that federal, state, and local policies and practices encourage the broad implementation of well-designed, evidence-based SEL programs during and after school.

## Introduction

Twenty-first century schools serve socio-culturally diverse students with varied abilities and motivations for learning (Learning First Alliance, 2001). While some students are academically engaged and participate energetically in class and extracurricular activities, others are less engaged and achieve poorly (Blum & Libbey, 2004). Many students become more disengaged from school as they progress from elementary to middle to high school. It is estimated that 40 to 60 percent of urban, suburban, and rural high school students become chronically disengaged from school — not counting those who already dropped out (Klem & Connell, 2004). Approximately 30 percent of high school students participate in or experience multiple high-risk behaviors (e.g., substance use, sex, violence, depression, attempted suicide) that interfere with school performance and jeopardize their potential for life success (Centers for Disease Control and Prevention, 2008; Dryfoos, 1997). Furthermore, large percentages of students lack social-emotional competence, believe their teachers do not care about them, and disrupt the educational experiences of classmates (Benson, Scales, Leffert, & Roehlkepartain, 1999).

Preparing students for life success requires a broad, balanced education that both ensures their mastery of basic academic skills and also prepares them to become responsible adults (Association for Supervision and Curriculum Development, 2007). It is important for families, schools, and communities to identify and effectively implement research-based approaches that promote children's social, emotional, and academic engagement and growth in the early years of school. Research conducted during the past few decades indicates that social and emotional learning (SEL) programming for elementary- and middle-school students is a very promising approach to reducing problem behaviors, promoting positive adjustment, and enhancing academic performance (Diekstra, 2008; Greenberg, Weissberg, O'Brien, Zins, Fredericks, Resnik, & Elias, 2003; Wilson, Gottfredson, & Najaka, 2001; Weissberg, Kumpfer, & Seligman, 2003; Zins, Weissberg, Wang, & Walberg, 2004).

The purpose of this report is to summarize the primary findings and implications of three large-scale reviews of research evaluating the impact of SEL programs for school children in kindergarten through eighth grade.

1. **Universal Review.** This review examined the impact of universal school-based SEL

*We cannot always build the future for our youth, but we can build the youth for our future.*
*—Franklin D. Roosevelt*

interventions: that is, interventions that are appropriate for a general student body without any identified behavioral or emotional problems or difficulties (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2008).

2. **Indicated Review.** This review focused on school-based indicated programs: that is, interventions that identify and work with students who are displaying early signs of behavioral or emotional problems.

3. **After-School Review.** This review evaluated SEL interventions conducted in after-school programs, which primarily involved students without identified problems (Durlak, Weissberg, & Pachan, in press).

In other words, we evaluated SEL programs across two different time periods and settings (during the school day and after school) and for two different types of student populations (those without any identified problems in the Universal and After-School Reviews and those with early identified problems in the Indicated Review). Our findings were based on 317 studies that involved 324,303 participants. In sum, we examined evaluations of programs conducted by many different independent investigators in three different research literatures in an attempt to reach general conclusions about the impact of SEL interventions.

**What is Social and Emotional Learning?**

Social and emotional learning is the process through which children and adults acquire the knowledge, attitudes, and skills to:

- Recognize and manage their emotions
- Set and achieve positive goals
- Demonstrate caring and concern for others
- Establish and maintain positive relationships
- Make responsible decisions
- Handle interpersonal situations effectively

These critical social-emotional competencies involve skills that enable children to calm themselves when angry, initiate friendships and resolve conflicts respectfully, make ethical and safe choices, and contribute constructively to their community (Collaborative for Academic, Social, and Emotional Learning, 2005; Elias, Zins, Weissberg, Frey, Greenberg, Haynes, Kessler, Schwab-Stone, & Shriver, 1997; Zins & Elias, 2006).

The Collaborative for Academic, Social, and Emotional Learning (CASEL) has identified five groups of inter-related core social and emotional competencies that SEL programs should address (Collaborative for Academic, Social, and Emotional Learning; 2005; Devaney, O'Brien, Keister, Resnik, & Weissberg, 2006):

- **Self-awareness:** accurately assessing one's feelings, interests, values, and strengths; maintaining a well-grounded sense of self-confidence;
- **Self-management:** regulating one's emotions to handle stress, controlling impulses, and persevering in addressing challenges; expressing emotions appropriately; and setting and monitoring progress toward personal and academic goals;
- **Social awareness:** being able to take the perspective of and empathize with others; recognizing and appreciating individual and group similarities and differences; and recognizing and making best use of family, school, and community resources;
- **Relationship skills:** establishing and maintaining healthy and rewarding relationships based on cooperation; resisting inappropriate social pressure; preventing, managing, and resolving interpersonal conflict; and seeking help when needed; and
- **Responsible decision making:** making decisions based on consideration of ethical standards, safety concerns, appropriate social norms, respect for others, and likely consequences of various actions; applying decision-making skills to academic and social situations; and contributing to the well-being of one's school and community.

*These critical social-emotional competencies involve skills that enable children to calm themselves when angry, initiate friendships and resolve conflicts respectfully, make ethical and safe choices, and contribute constructively to their community.*

Students who appraise themselves and their abilities realistically (self-awareness), regulate their feelings and behaviors appropriately (self-management), interpret social cues accurately (social awareness), resolve interpersonal conflicts effectively (relationship skills), and make good decisions about daily challenges (responsible decision making) are headed on a pathway toward success in school and later life. Thus, the short-term goals of SEL programming are to promote students' social-emotional skills and positive attitudes, which, in turn, should lead to improved adjustment and academic performance as reflected in more positive social behaviors, fewer conduct problems, less emotional distress, and better grades and achievement test scores (Collaborative for Academic, Social, and Emotional Learning, 2005; Zins et al., 2004).

This report addresses the following research questions: (a) What skills, attitudes, behaviors, and academic outcomes do SEL programs achieve for elementary- and middle-school (K-8) students? (b) Do SEL program effects endure over time? (c) Are SEL programs effective in school and after school and for students with problems (Indicated Review) and without problems (Universal and After-School Reviews)? and (d) What features are associated with highly effective SEL programs?

## Overview of the Three Reviews

### General Features of Each Review
For each review, we conducted our analyses using a meta-analytic approach, which summarizes in a quantitative fashion the overall impact of interventions across studies. Studies eligible for inclusion in these reviews had to emphasize the development of one or more social-emotional competencies, target students between the ages of 5 and 13 (i.e., grades K-8), include a control group, and report information for calculating effect sizes (ESs). For each review, we systematically examined published and unpublished literature sources to obtain a representative nonbiased sample of investigations that had appeared by Dec. 31, 2007.

The Universal Review included 180 school-based studies involving 277,977 students. The most common strategy involved classroom-based programming, which usually took the form of a specific curriculum or set of lessons that sought to develop social and emotional skills such as problem and feeling identification, goal setting, conflict-resolution strategies, and interpersonal problem-solving skills. In addition, there were some multi-component programs that supplemented classroom skills training with a schoolwide, parent, or community component to reinforce what was taught in the classroom (Durlak et al., 2008).

In the Indicated Review there were 80 studies involving 11,337 students. These studies focused on children who showed signs of social, emotional, or behavioral problems, but had not been diagnosed with a mental disorder or need for special education. More than half (59 percent) of the programs consisted of a single-intervention component such as small-group problem-solving sessions, in which leaders taught various social and emotional skills — e.g., recognizing feelings in themselves and others, how to make friends, and how to handle provocations by others. The remaining studies included multi-component programs involving different combinations of individual, group, classroom, and parent training supports.

The After-School Review contained 57 studies involving 34,989 students. These after-school programs had to be implemented outside of regular school hours during at least part of a school year, be supervised or monitored by adults, and have the goal of developing one or more personal and social skills. After-school programs that focused only on improving academic performance or school attendance, and outdoor-extracurricular, summer camp, or adventure programs such as Outward Bound, were not eligible (Durlak et al., in press).

### Main Findings
Overall, the results indicated strong and consistent support for the value of SEL

*The short-term goals of SEL programming are to promote students' social-emotional skills and positive attitudes, which, in turn, should lead to improved adjustment and academic performance as reflected in more positive social behaviors, fewer conduct problems, less emotional distress, and better grades and achievement test scores.*

**Table 1: Outcomes Obtained at Post and Follow-up in the Universal Review**

| Outcome Category | Statistically Significant Improvements for Students | |
|---|---|---|
| | At Post | At Follow-up |
| SEL skills | Yes | Yes* |
| Positive attitudes | Yes | Yes |
| Positive social behaviors | Yes | Yes |
| Conduct problems | Yes | Yes |
| Emotional distress | Yes | No* |
| Academic performance | Yes | Yes* |

*Note: Between 29 to 99 studies reported post data and between 6 to 17 studies collected follow-up data across the six outcome categories.*

*\* Data came from 10 or fewer studies, suggesting caution when interpreting these results.*

programs. There were six major sets of findings:

1. Students in SEL programs demonstrated improvement in multiple areas of their personal, social, and academic lives. SEL programs fostered positive effects on: students' social-emotional skills; attitudes towards self, school, and others; social behaviors; conduct problems; emotional distress; and academic performance. Notably, SEL programming yielded an average gain on achievement test scores of 11 to 17 percentile points.

2. SEL interventions were effective in both the school and after-school setting and for students with and without presenting problems. They were also successful across the K-8 grade range, for schools in urban, suburban, and rural areas, and for racially and ethnically diverse student bodies.

3. Studies that collected data at follow-up indicated these effects remained over time — although they were not as strong as the results at post.

4. Data from the Universal and Indicated Reviews also indicated that SEL programs were effective when conducted by school staff, suggesting that these interventions can be incorporated into routine educational practice.

5. In two of the reviews (Universal and After School), we found that interventions that followed four recommended practices for skill training (we called these SAFE programs) were more effective than programs that did not follow these recommendations. Each letter in the acronym SAFE refers to a recommended practice for teaching skills (Durlak et al., 2008):

   - *Sequenced*: Does the program apply a planned set of activities to develop skills sequentially in a step-by-step fashion?
   - *Active*: Does the program use active forms of learning such as role-plays and behavioral rehearsal with feedback?
   - *Focused*: Does the program devote sufficient time exclusively to developing social and emotional skills?
   - *Explicit*: Does the program target specific social and emotional skills?

6. Placing current findings in the context of previous research offers strong support for SEL programming. Comparing the findings in our reviews to results obtained in reviews of evidence-based interventions conducted by other researchers suggests that SEL programs are among the most successful interventions ever offered to school-aged youth.

In conclusion, our findings demonstrate that SEL programs implemented by school staff members (e.g., teachers, student support personnel) improve children's behavior, attitudes toward school, and academic achievement. Given these broad positive impacts, we recommend that well-designed programs that simultaneously foster students' social, emotional, and academic growth be widely implemented in schools.

Detailed information on the procedures and statistical findings from each review is available in a technical report (CASEL, 2008) that is posted on the CASEL website (www.casel.org) and the Lucile Packard Foundation for Children's Health website (www.lpfch.org/sel). The following sections offer more details on the main findings from each of the three reviews.

## Universal Review: Interventions for the General Student Body

*How Did Students Change?* This review included 180 studies involving 277,977 students. Table 1 at left summarizes the results for the six different types of outcomes that were available in this research literature. Results are provided for two points in time: immediately after the intervention period ("at post") and at follow-up (at least six months after the end of the program). Positive (i.e., statistically significant) findings were obtained in all six outcome categories at post. Compared to those in control groups, students who participated in SEL programs demonstrated:

- Increased social-emotional skills in test situations (e.g., self-control, decision-making, communication, and problem-solving skills);
- More positive attitudes toward self and others (e.g., self-concept, self-esteem, prosocial attitudes toward aggression, and liking and feeling connected to school);
- More positive social behaviors (e.g., daily behaviors related to getting along with and cooperating with others);
- Fewer conduct problems (e.g., aggression, disruptiveness);
- Lower levels of emotional distress (i.e., anxiety, depressive symptoms); and
- Significantly better academic performance (i.e., school grades and achievement test scores).

These findings indicate that SEL programs were associated with positive effects in multiple areas of students' lives, including improved academic performance — as indicated by significant gains in achievement test scores (ES = 0.28) and grades (ES = 0.34).

Twenty-four studies in the Universal Review collected follow-up data on program effects across the six outcome categories over a median follow-up period of 52 weeks. As noted in Table 1, positive findings at follow-up were obtained in five of the six outcome categories (all except emotional distress). Although more follow-up studies are needed, these findings indicate that the impact of school-based, universal SEL programs persists over time.

**Other Major Findings**

There were four additional important findings from the Universal Review:

1. School personnel were successful in conducting SEL programs. In fact students demonstrated improved academic performance only when teachers, as opposed to researchers or community members, implemented SEL programs.
2. Programs that followed four recommended training practices (i.e., **S**equenced instruction, **A**ctive learning strategies, a **F**ocus on developing social-emotional skills, and **E**xplicit targeting of specific social-emotional skills) were more successful than programs that failed to utilize these four strategies. Programs utilizing SAFE practices achieved positive results in all six outcome categories, while programs that did not utilize all four practices achieved positive results in only three outcome categories.
3. Effective program implementation was also associated with better results. Effective program implementation refers to situations in which the major elements of the proposed intervention were conducted as intended by program developers. Programs that reported implementation problems achieved positive results in only three of the outcome categories compared to those without problems, which achieved positive results in all six categories.
4. Interventions were successful for students of different ages, when offered in schools in urban, suburban, and rural settings, and for schools primarily serving ethnically and socio-economically diverse student bodies. These latter data suggest the utility of SEL programs for many different types of schools and student bodies.

# Indicated Review: Interventions for Students with Early-Identified Problems

*How Did Students Change?* This review contained 80 studies involving 11,337 students. Table 2 at right summarizes the results in the seven outcome areas for which data were available. Significant positive findings immediately after the intervention period ("at post") were obtained in six of these categories (all but drug use). It should be noted that only eight studies included a measure of drug use at post and only seven measured drug use at follow-up, and this small sample size could have contributed to the failure to obtain a significant positive finding regarding drug use. Compared to those in control groups, students who participated in SEL programs demonstrated:

- Increased social-emotional skills

| Outcome Category | Statistically Significant Improvements for Students | |
| --- | --- | --- |
| | At Post | At Follow-up |
| SEL skills | Yes | Yes* |
| Positive attitudes | Yes | Yes |
| Positive social behaviors | Yes | Yes |
| Conduct problems | Yes | Yes |
| Emotional distress | Yes | Yes |
| Academic performance | Yes | No* |
| Drug use | No* | No* |

**Table 2: Outcomes Obtained at Post and Follow-up in the Indicated Review**

*Note: Between 8 and 53 studies at post and between 1 and 21 studies at follow-up contributed data across the seven outcome categories.*

* *Data came from fewer than 10 studies, suggesting caution when interpreting these results.*

- More positive attitudes toward self and others
- More positive social behaviors
- Fewer conduct problems
- Lower levels of emotional distress
- Better academic performance

The findings at follow-up (again, at least six months after the programs ended) were also generally positive, but for some outcomes these were based on a limited number of studies, as noted in Table 2.

In summary, replicating many of the findings from the Universal Review, SEL programs for students displaying early signs of problems were able to improve students' attitudes, prosocial behaviors, and school performance and reduce negative behaviors and feelings of stress and anxiety.

**Other Major Findings**
1. School personnel were as effective in conducting SEL programs as researchers or community members.
2. Programs were equally effective for students with different problems when they first entered the program (i.e., for students showing conduct problems, signs of emotional distress, or difficulties with peer relationships).
3. Interventions were successful for students of different ages, when offered in schools in urban, suburban, and rural settings, and for schools primarily serving ethnically and socio-economically diverse student bodies.

In sum, data from the Indicated Review replicated many of the findings of the Universal Review.

## After-School Review: Programming for Students When the School Day Ends

*How Did Students Change?* There were 57 studies in the After-School Review involving 34,989 students. Table 3 at left summarizes results for the eight outcome categories available from these studies. In this review, it was possible to examine findings separately for how students felt about themselves (i.e., self-perceptions) or about school (i.e., school bonding), as well as how SEL programs impacted school attendance. Because few of these programs measured social-emotional skills separately from measuring how students behaved daily (which is reflected in the positive social behaviors outcome category), we were unable to report findings in this category for the After-School Review.

At post, positive results were obtained in five of the eight outcome categories. Findings for school grades, attendance, and drug use were not statistically significant. Unfortunately, too few studies collected data during any follow-up period to reach any firm conclusions about these programs' long-term impact.

**Other Major Findings**
1. Results from the After-School Review replicated one of the other major findings from the Universal Review, namely that programs following the same four recommended training practices (i.e., SAFE programs) were more successful than programs that did not follow these strategies. SAFE programs achieved positive results in seven of the eight outcome categories (all except school attendance) at post while programs that did not follow SAFE practices failed to achieve positive results on any of these outcomes.
2. Replicating the findings from both the Universal and Indicated Reviews, after-school programs were successful for children of different ages and racial-ethnic and socio-economic groups and when offered in urban, suburban, or rural settings.

**Table 3: Outcomes Obtained at Post and Follow-up in the After-School Review**

| Outcome Category | Statistically Significant Improvements for Students | |
|---|---|---|
| | At Post | At Follow-up |
| Self-perceptions | Yes | No* |
| School bonding | Yes | No* |
| Positive social behaviors | Yes | No studies |
| Conduct problems | Yes | No* |
| School grades | No** | No studies |
| Achievement tests | Yes | No* |
| Drug use | No** | No* |
| School attendance | No | No studies |

*Note: Between 16 and 51 studies reported post data and between 1 and 3 collected any follow-up data across different outcome categories.*
*\* Data were based on fewer than 10 studies, suggesting caution when interpreting these results.*
*\*\* Positive findings were, however, obtained in this outcome category for after-school programs using four recommended evidence-based training practices (i.e., SAFE programs).*

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# Putting Current Findings From All Three Reviews into Perspective

Comparing our findings with those of previous research on youth programs helps put them into perspective. Because we conducted three meta-analytic reviews, we were able to quantify the magnitude of change associated with SEL programs by calculating mean effect sizes (ESs) for each outcome category (Hedges & Olkin, 1985; Lipsey & Wilson, 2001). In brief, our mean ESs reflect the magnitude of desirable change that occurred in SEL students compared to students in control groups. See our technical report for more information on ESs (www.casel.org). Figures 1-3 below and on the next page compare our results to those reported by others using similar meta-analytic techniques and comparable outcome categories. In other words, here, we consider: "How does the amount of change demonstrated by students in SEL interventions that we evaluated compare to the results achieved by other effective school-based programs?"
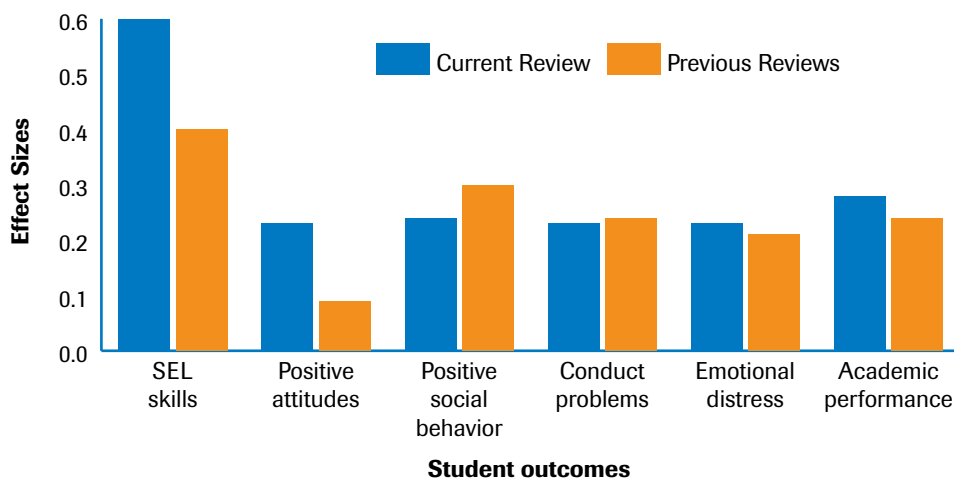
For each review, the comparative data are favorable. The amount of change in SEL interventions is similar to, or in some cases higher than that obtained in other successful youth programs. Moreover, our reviews were the only ones to include six to eight outcome areas; most previous research has focused on a limited number of outcomes, usually one to three, and has not examined the breadth of outcomes discussed here.

**Percentile Gains in Academic Achievement**
We also translated our findings into improvement indices that show percentile gains in the achievement test scores achieved by the average student in an SEL intervention program compared to the average student in a control group, following procedures of the Institute of Education Sciences What Works Clearinghouse (http://ies.ed.gov/ncee/wwc/references/iDocViewer/Doc.aspx?docID=4&tocId=1). These percentile gains provide an indication of the additional value that SEL programs provide. The Universal, Indicated, and After-School (SAFE programs only) Reviews reflect an average percentile gain on achievement test scores for students in SEL programs of 11, 17, and 16 points, respectively. While more change is certainly desirable, most educators would welcome interventions that can improve students' academic performance by 11 to 17 percentile points. These percentile gains indicate that SEL programs offer students a practical educational benefit.

*Gains of 11 to 17 percentile points on achievement tests indicate that SEL programs offer students a practical educational benefit.*



**Figure 1:** Comparing the Amount of Change Across Outcomes for Students in the Universal Review with the Results of Previous School-Based Universal Reviews

**Figure 2:** Comparing the Amount of Change Across Outcomes for Students in the Indicated Review with the Results of Previous Indicated Reviews
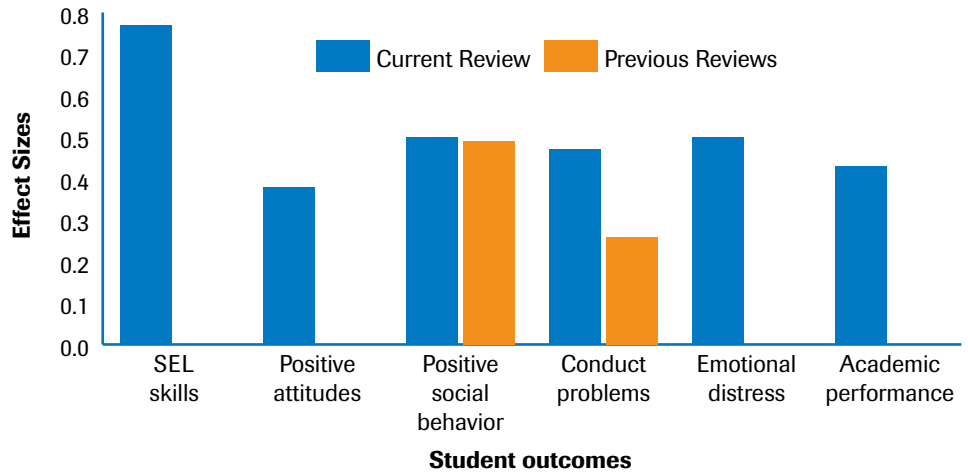


*Note: Previous Indicated reviews have examined changes in positive behaviors and conduct problems, but not the other outcomes we evaluated.*

**Figure 3:** Comparing the Amount of Change Across Outcomes for Students in the After-School Review with the Results of Previous After-School Reviews



## Summary

The results from our reviews indicate that SEL interventions achieve outcomes across a wide range of categories that are similar to, and, in some cases, better than those obtained in other evidence-based interventions for school-age youth. Furthermore their demonstrated impact on raising school grades and standardized achievement test scores is particularly noteworthy in view of schools' accountability for improving students' academic performance. Moreover, the effects of SEL programs are achieved among student populations that are ethnically and socio-economically diverse and for students both without presenting behavioral or emotional problems and those exhibiting early difficulties.

Findings from our three reviews replicate results reported by other research teams that have conducted related meta-analyses. For example, Wilson et al. (2001) examined results from 165 studies of school-based prevention practices and their effects
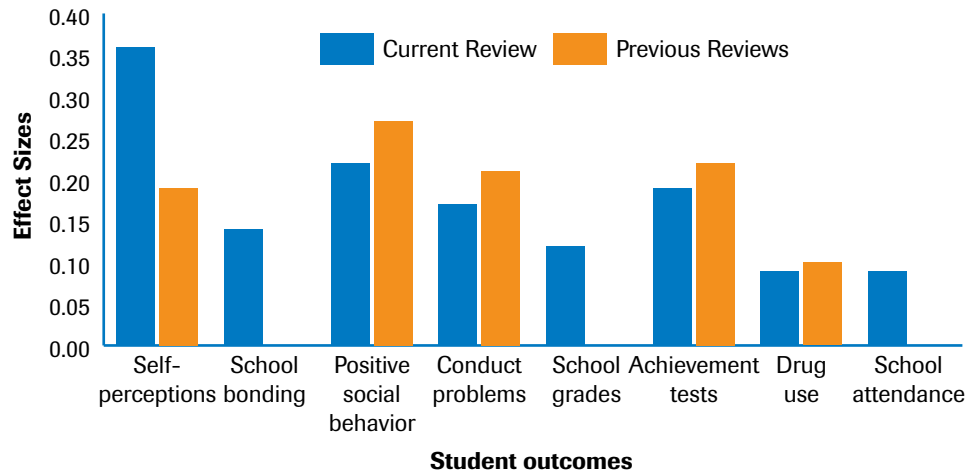
*The demonstrated impact of SEL interventions on raising school grades and standardized achievement test scores is particularly noteworthy in view of schools' accountability for improving students' academic performance.*

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on crime, substance use, dropout/nonattendance, and other conduct problems. They reported that non-cognitive-behavioral counseling, social work, and other therapeutic interventions yielded negative effects, whereas SEL approaches such as self-control or social competence promotion efforts produced consistently positive outcomes. Diekstra (2008) recently completed a major review on the *Effectiveness of School-based Social and Emotional Education Programmes Worldwide.* Similar to our results, he stated: "The overall conclusion from both reviews is crystal clear: systematic, programmatic attention to the teaching of social-emotional skills in the school system has worldwide significance. It promotes overall development of children and youngsters, prevents developmental problems and promotes academic achievement" (p. 259).

Although a growing body of research supports the efficacy of SEL programming, further research is needed to advance the quality of future practice. Future studies will help to determine, for example, which combinations of social-emotional skills most effectively influence which outcomes for various subgroups of students; how to prolong program impacts; how best to support school staff as they implement interventions; and whether combining SEL programs designed for different time periods or student populations would produce even greater benefits than implementing a single program.

Nevertheless, our findings indicate that SEL programs appear to be among the most successful youth-development interventions ever offered to K-8 students. Such programs should be recommended as successful options both during the regular school day and after school for promoting students' positive behaviors and attitudes toward school, mastery of academic skills, positive mental health, and preparation to become responsible adults. At the same time, our implementation findings indicate that it is important to attend to systemic factors that influence program impacts on student behavior (Greenberg et al., 2003). Three key variables are policy, leadership, and professional development for teachers and administrators.

Federal, state, and local policies must encourage schools to focus on children's academic and social-emotional development. At the state level, for example, Illinois has established SEL standards as part of its student learning standards, and this has increased educational emphases on fostering the social, emotional, and academic growth of all students (Collaborative for Academic, Social, and Emotional Learning, 2005). Recent research also finds that principal leadership in supporting SEL programming enhances student benefits from SEL programming (Kam, Greenberg, & Walls, 2003). Finally, professional development for administrators, teachers, student support staffs, and human service providers to ensure the quality of SEL program implementation is critical (Devaney et al., 2006). A strong commitment to the high-quality implementation of research-based SEL programming will promote the current functioning and future development of children and youth.

*SEL programs appear to be among the most successful youth-development interventions ever offered to K-8 students.*

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