

SEL and Academic Performance

Social and emotional learning (SEL) programs have direct as well as indirect impacts on student learning and school success The figure above describes the mechanisms of action that connect SEL programs to student achievement.

The far left column of boxes in the figure is definitional. It posits that evidence-based SEL programs do two things: (1) create safe, caring, well-managed learning environments, i.e., they address the classroom and school climate in systematic ways (top left box); and (2) provide sequenced, developmentally appropriate, class-

room-based instruction in five major areas of social and emotional competence (bottom left box) Few SEL programs accomplish all of these objectives. Instead, schools typically combine programs with strengths in one or the other area to achieve the full benefits of SEL programming.

The remainder of the figure describes a series of relationships that hold true in studies of classrooms and the interventions designed to improve them Several of the studies highlighted below are experimental or quasi-experimen-

tal in design, rather than merely correlational That is, SEL programming has been shown to result in better student outcomes, including improved academic performance These relationships, and some of the research supporting them, are described in the remainder of this brief

1. There is solid evidence demonstrating that student attachment to school is strongly influenced by the learning environment. Classroom and school interventions that make the learning environment safer, more caring, better managed, more participatory, and that enhance students' social competence, have been shown to increase student attachment to school. In turn, students who are more engaged and attached to school have better attendance and higher graduation rates, as well as higher grades and standardized tests scores. Interventions that increase student bonding often positively affect student educational outcomes and academic achievement.

Supporting Evidence

- A detailed review of the literature finds that creation of supportive learning environments increases student engagement and attachment to school, and that these variables significantly influence student academic performance (Osterman, 2000).
- Findings from the National Longitudinal Study of Adolescent Health suggest that students feel greater attachment to school when their schools are smaller and when they are part of well-managed classrooms in which students get along with each other and with teachers, pay attention, and complete assignments (Blum, R.W., McNeely, C.A., & Rinehart, PM., 2002).
- The evaluation of a program designed to foster (1) a more supportive, cooperative, and participatory learning environment, and (2) the development of prosocial skills in students, documented increases in students' sense of school community and commitment to school (Battistich, Solomon, Watson, & Schaps, 1997). Perceived sense of community mediated the positive program effects, including improved academic achievement (Solomon, Battistich, Watson, Schaps & Lewis, 2000).

- When teachers implemented an intervention that included proactive classroom management, interactive teaching methods, cooperative learning techniques, and interpersonal skills instruction, students' positive attitudes and commitment to school significantly increased, as did the grades and standardize achievement scores of males (Hawkins, Guo, Hill, Battin-Pearson, & Abbott, 2001; O'Donnell, Hawkins, Catalano, Abbott, & Day, 1995)
- A school and classroom intervention that increased student bonding to school by creating smaller learning environments, increasing classmate stability during school transitions, and restructuring teacher roles to be more supportive also resulted in higher attendance rates, lower drop out rates, and better grades among middle and high school students (Felner, et al., 1993).
- Teacher-child conflict decreases student attachment to school, while closeness positively relates to school bonding and academic achievement (as assessed on the Metropolitan Readiness Test). Teacher-child conflict increases student school avoidance, and decreases student liking of school, self-directed behavior, and levels of cooperation in the classroom (Birch & Ladd, 1997)
- 2. Research indicates that attachment to school decreases the prevalence of highrisk behaviors, and interventions that improve classroom climate and functioning, and enhance student attachment to school, decrease rates of high-risk behaviors. When students are attached to school and to prosocial teachers and peers, they are more likely to behave in prosocial ways themselves, and to avoid engaging in highrisk behaviors (Hawkins, Catalano, & Miller, 1992). Providing students with opportunities for participation may also increase students' intrinsic motivation to behave in prosocial ways, thereby decreasing school crime and other forms of deviant behavior in the school setting (Csikszentmihalyi, & Larson, 1980).

Supporting Evidence

A meta-analysis of 165 studies of schoolbased prevention activities showed environmentally focused interventions (e.g., estab-

- lishing norms for behavior, classroom and instructional management, school or discipline management interventions, reorganization of grades/classes) significantly decreased the prevalence of the four outcomes examined: delinquency, alcohol and drug use, drop out/non-attendance, and conduct problems (Wilson, Gottfredson, & Najaka, (2001).
- Students in schools using a program designed to create more supportive and cooperative-learning environments had significantly lower rates of drug use and delinquency than comparison students (Battistich, Schaps, Watson, Solomon, & Lewis, 2000)
- Adolescents' sense of connectedness to school is associated with significantly lower rates of emotional distress, suicidal thoughts and behaviors, violence, substance abuse, and sexual activity (Resnick, et al., 1997)
- 3. Creating more caring and psychologically safe classroom environments also improves a variety of students' social and emotional skills, thereby reinforcing the second component of effective evidencebased SEL programming—SEL instruction. In supportive atmospheres, for example, students feel more comfortable approaching and interacting with teachers and peers, thereby strengthening their relationship skills. In essence, teachers and schools can improve students' social-emotional competence by creating a social learning context where such skills are frequently called for and positively reinforced.

Supporting Evidence

- A review of the research on cooperative learning indicates that teachers can improve the interpersonal relationships among students by creating cooperative learning groups characterized by positive interdependence Johnson, Johnson, & Maruyama, 1983).
- Students in classrooms using a program designed to create more supportive and cooperative learning environments showed significant improvement in two types of interpersonal skills spontaneous prosocial behavior and supportive and friendly behavior (Solomon, Watson, Delucchi, Schaps, & Bat-

- tistich, 1988)
- Students in such classrooms also scored significantly higher on measures of cognitive problem-solving skills (e.g., interpersonal sensitivity, consideration of others' needs, means-end thinking), and used more prosocial conflict resolution strategies than comparison children (Battistich, Solomon, Watson, Solomon, & Schaps, 1989).
- Adolescents' judgments of their teachers as respectful, fair, or supportive are assiciated with less cheating (Calabrese & Cochran, 1990; Murdock, Hale, & Weber, 2001).
- Among adolescents, teacher support was a significant predictor of student reports of pursuit of adherence to classroom norms, while peer support was a positive predictor of their reports of prosocial behavior (Wentzel, 1998)
- Adolescents who characterize their learning environments as including a caring, respectful teacher and peers who help each other were more likely to participate in class and complete their homework (Murdock, 1999).
- 4. SEL instruction provides students with basic skills, such as good decision making and refusal skills, which enable them to successfully avoid engaging in bigb-risk behaviors, and to participate in behaviors that support their positive development.

Supporting Evidence

- A meta-analysis of 165 studies of schoolbased prevention activities found interventions with social competency instruction significantly decreased delinquency, alcohol and drug use, and conduct problems (Wilson, Gottfredson, & Najaka, 2001).
- A review of prevention studies from 1980-1990 found that among 12 categories of programs, comprehensive programs (i.e., those using several different prevention strategies, but all providing decision making and resistance skills training) and social influence programs (i.e., programs teaching about and providing skills to resist social pressures) were the more effective in preventing or delaying the onset of substance use (Hansen, 1992).
- Reviews of the research on school-based substance abuse and violence prevention programs indicate that instruction and prac-

tice in social and emotional competencies is a critical element of effective programs (Dusenbury, & Falco, 1995; Dusenbury, Falco, Lake, Brannigan, & Bosworth, 1997)

5. High-risk behaviors in students are associated with poor academic performance. Likewise, poor academic performance is a risk factor for a variety of high-risk behaviors, while academic achievement is a protective factor.

Supporting Evidence

- A review of health risk behavior studies and reports found student health risks such as intentional injuries, substance use, sexual behavior, and poor physical health were directly and negatively linked to educational outcomes, education behaviors, and student attitudes about education (Symons, Cinelli, James, & Groff, 1997)
- A meta-analysis of naturalistic studies on academic performance and delinquency found that high academic achievers are much less likely to engage in delinquent acts than their low-achieving peers Academic performance negatively predicted delinquency independent of socioeconomic status (Maguin & Loeber, 1996).
- Data from the National Longitudinal Study of Adolescent Health found that being at risk for academic failure was associated with every health risk behavior studied. The authors state that school failure should be recognized as a health and education crisis (Blum, Beuhring, & Rinehard, 2000).
- 6. SEL instruction provides students with the social skills needed to successfully navigate the social learning environment of the classroom. Social and emotional skills can also significantly enhance learning when they are integrated into different academic content areas. Other specific strategies and

mechanisms for enhancing academic performance through SEL can be found in Zins, Weissberg, Wang, & Walberg (2003).

- A meta-analysis of 165 studies of schoolbased prevention activities found interventions with social competency instruction significantly decreased rates of student drop out/non-attendance (Wilson, et al., 2001).
- Well-designed evaluations of several SEL programs have demonstrated that SEL instruction can produce significant improvements in school attitudes, school behavior, and school performance (Zins, et al., 2003).
- Longitudinal studies of a preschool program designed to foster social-emotional competence documented numerous positive outcomes for program participants, including less time in special education programs, higher literacy and high school graduation rates, higher incomes and rates of home ownership, fewer arrests, and (for females) fewer children outside of marriage (Schweinhart, Barnes, & Weikart, 1993; Schweinhart & Weikart, 1997)
- In a longitudinal evaluation of a social problem-solving program, students who participated in the program had higher overall academic achievement six years later than a non-participant comparison group Students whose teachers most fully implemented the program performed better in language arts and mathematics, and had fewer absences than students in the comparison group (Elias, Gara, Schuyer, Branden-Muller, & Sayette, 1991)
- Students' social competence in second grade significantly influenced their third grade academic competence (as assessed by language and math grades and work skills), suggesting that improving social competence results in improved student academic performance (Welsh, Parke, Widaman, & O'Neil, 2001)

References

Battistich, V, Schaps, E, Watson, M, Solomon, D, & Lewis, C. (2000). Effects of the Child Development Project on students' drug use and other problem behaviors *The Journal of Primary Prevention*, 21, 75-99

Battistich, V., Solomon, D., Watson, M., & Schaps, E. (1997). Caring school communities *Educational Psychologist*, 32(3), 137-151

Battistich, V., Solomon, D., Watson, M., Solomon, J., & Schaps, E. (1989) Effects of an elementary school program to enhance prosocial behavior on children's cognitive social problem-solving skills and strategies. *Journal of Applied Developmental Psychology*, 10, 147-169

Birch, S H & Ladd, G W (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology*, 35, 61-79

Blum, R.W, Beuhring, T, & Rinehard, PM (2000) Protecting teens: Beyond race, income and family structure. Minneapolis: University of Minnesota, Center for Adolescent Health and Development.

Blum, R.W, McNeely, C.A., & Rinehart, P.M. (2002) *Improving the odds: The untapped power of schools to improve the health of teens.* Minneapolis: University of Minnesota, Center for Adolescent Health and Development.

Calabrese, R. L., & Cochran, J T (1990) The relationship of alienation to cheating among a sample of American adolescents. *Journal of Research and Development in Education*, 23, 65-72

Csikszentmihalyi, M, & Larson, R. (1980.) Intrinsic rewards in school crime. In K. Baker and R.J. Rubel (Eds.), *Violence and crime in the schools*. Lexington, MA: D.C. Health.

Dusenbury, L. & Falco, M. (1995). Eleven components of effective drug abuse prevention curricula *Journal of School Health*, 65, 420-425

Dusenbury, L., Falco, M., Lake, A., Brannigan, R., & Bosworth, K. (1997). Nine critical elements of promising violence prevention programs. *Journal of School Health*, 67, 409-414.

Elias, M., Gara, M., Schuyer, T., Branden-Muller, L., & Sayette, M. (1991). The promotion of social competence: Longitudinal study of a preventive school-based program American Journal of Orthopsychiatry, 61, 409-417

Felner, R.D., Brand, S., Adan, A.M., Mulhall, P.F., Flowers, N., Sartain, B., & DuBois, D.L. (1993) Restructuring the ecology of the school as an approach to prevention during school transitions: Longitudinal follow-ups and extensions of the School Transition Environment Project (STEP) Prevention in Human Services, 10, 103-136.

Hansen, WB, (1992) School-based substance abuse prevention: A review of the state of the art in curriculum, 1980-1990 *Health Education Research*, 7, 403-430

Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, 112, 64-105

Hawkins, J.D., Guo, J., Hill, K.G., Battin-Pearson, S., & Abbott, R.D. (2001). Long-term effects of the Seattle Social Development Project on school bonding trajectories. *Applied Developmental Sciences*, 5, 225-236.

Johnson, D.W., Johnson, R.T., & Maruyama, G (1983). Interdependence and interpersonal attraction among heterogeneous and homogeneous individuals: A theoretical formulation and a meta-analysis of the research. *Review of Educational Research*, 53, 5-54.

Maguin, E. & Loeber, R. (1996) Academic performance and delinquency *Crime and justice A review of research*, 20, 145-264

Murdock, T B. (1999). The social context of risk. Status and motivational predictors of alienation in middle school. *Journal of Educational Psychology*, 91, 62-75

Murdock, T.B., Hale, N.M., & Weber, M.J. (2001) Predictors of cheating among early adolescents: Academic and social motivations. *Contemporary Educational Psychology*, 26, 96-115

O'Donnell, J., Hawkins, J. D., Catalano, R. C., Abbott, R., & Day, L. E. (1995). Preventing school failure, drug use, and delinquency among low-income children: Effects of a long-term prevention project in elementary schools. *American Journal of Orthopsychiatry*, 65, 87-100

Osterman, K.F (2000) Students' need for belonging in the school community *Review of Educational Research*, 70, 323-367

Resnick, M., Bearman, P.S., Blum, R.W., Bauman, K.E., Harris, K.M., Hones, J., Tabor, J., Beuhring, T., Sieving, R.E., Shew, M., Ireland, M., Beariner, L.H., & Udry, J.R. (1997). Protecting adolescents from harm. Journal of the American Medical Association, 278, 823-832

Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). Significant benefits: The High/Scope Perry Preschool Study through age 27 (High/Scope Educational Research Foundation Monographs No. 10). Ypsilanti, MI. High Scope Press.

Schweinhart, L. J., & Weikart, D. P. (1997). Lasting differences: The High/Scope Preschool Curriculum Comparison Study through age 23 (High/Scope Educational Research Foundation Monographs No 12). Ypsilanti, MI: High Scope Press.

Solomon, D, Battistich, V, Watson, M, Schaps, R., & Lewis, C. (2000). A six-district study of educational change: Direct and mediated effects of the Child Development Project *Social Psychology of Education*, 4, 3-51.

Solomon, D., Watson, M., S., Delucchi, K. L., Schaps, E., & Battistich, V (1988) Enhancing children's prosocial behavior in the classroom. *American Educational Research Journal*, 25, 527-55

Symons, C.W., Cinelli, B., James, T.C., & Groff, P. (1997) Bridging student health risks and academic achievement through comprehensive school health programs. *Journal of School Health*, 67, 220-227.

Welsh, M, Parke, R.D., Widaman, K, and O'Neil, R. (2001) Linkages between children's social and academic competence: A longitudinal analysis *Journal of School Psychology*, 39, 463-481

Wentzel, K. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology*, 90(2), 202-209

Wilson, D.B., Gottfredson, D.C., & Najaka, S.S. (2001). School-based prevention of problem behaviors: A meta-analysis. *Journal of Quantitative Criminology*, 17, 247-272

Zins, J.E., Weissberg, R.P., Wang, M.L., & Walberg, H.J. (Eds.) (2003). Building school success through social and emotional learning Implications for practice and research. New York: Teachers College

