

## **Table 1. Seattle Social Development Project Interventions**

### **Teacher Training In Classroom Instruction and Management**

#### **Proactive classroom management**

- Establish consistent classroom expectations and routines at the beginning of the year
- Give clear, explicit instructions for behavior
- Recognize and reward desirable student behavior and efforts to comply
- Use methods that keep minor classroom disruptions from interrupting instruction

#### **Interactive teaching**

- Assess and activate foundation knowledge before teaching
- Teach to explicit learning objectives
- Model skills to be learned
- Frequently monitor student comprehension as material is presented
- Re-teach material when necessary

#### **Cooperative learning**

- Involve small teams of students of different ability levels and backgrounds as learning partners
- Provide recognition to teams for academic improvement of individual members over past performance

### **Child Social and Emotional Skill Development**

#### **Interpersonal problem solving skills**

- Communication
- Decision making
- Negotiation
- Conflict resolution

#### **Refusal skills**

- Recognize social influences to engage in problem behaviors
- Identify consequences of problem behaviors
- Generate and suggest alternatives
- Invite peer(s) to join in alternatives

### **Parent Training**

#### **Behavior management skills**

- Observe and pinpoint desirable and undesirable child behaviors
- Teach expectations for behaviors
- Provide consistent positive reinforcement for desired behavior
- Provide consistent and moderate consequences for undesired behaviors

#### **Academic support skills**

- Initiate conversation with teachers about children's learning
- Help children develop reading and math skills
- Create a home environment supporting of learning

#### **Skills to reduce risks for drug use**

- Establish a family policy on drug use
- Practice refusal skills with children
- Use self-control skills to reduce family conflict
- Create new opportunities in the family for children to contribute and learn

**Summary of Seattle Social Development Project Intervention Findings**  
**J. David Hawkins, PI**

Intervention findings on the Seattle Social Development Project have been published in several journal articles, and are summarized in the table on the following page. Outcomes assessed ranged from school bonding to risky sexual behavior and positive adult functioning.

- Abbott R.D., O'Donnell J., Hawkins J.D., Hill K.G., Kosterman R., Catalano R.F. (1998) *Changing teaching practices to promote achievement and bonding to school*. American Journal of Orthopsychiatry; 68(4) 542-552
- Hawkins, J. D., Catalano, R. F., Jones, G., & Fine, D. N. (1987). Delinquency prevention through parent training: Results and issues from work in progress. In J. Q. Wilson, & G. C. Loury (Eds.), From children to citizens: Families, schools, and delinquency prevention (Vol. 3, pp. 186-204). New York: Springer-Verlag.
- Hawkins, J.D., Catalano, R.F., Kosterman, R., Abbott, R., & Hill, K.G. (1999) *Preventing Adolescent Health-Risk Behaviors by Strengthening Protection During Childhood*. Archives of Pediatric and Adolescent Medicine, 153: 226-234.
- Hawkins, J.D., Catalano, R.F., Morrison, D.M., O'Donnell, J., Abbott, R., & Day, L.E. (1992). *The Seattle Social Development Project: Effects of the First Four Years on Protective Factors and Problem Behaviors*. In: Joan McCord & Richard Tremblay, eds. Preventing Anti-Social Behavior: Interventions from Birth through Adolescence. New York: Guilford Press.
- Hawkins J, Doueck H, Lishner D. (1988). *Changing teaching practices in mainstream classrooms to improve bonding and behavior of low achievers*. American Educational Research Journal. 25: 31-50.
- Hawkins, J. D., Guo, J., Hill, K. G., Battin-Pearson, S., & Abbott, R. (2001). Long-term effects of the Seattle Social Development intervention on school bonding trajectories. Applied Developmental Science: Special issue: Prevention as Altering the Course of Development, 5, 225-236.
- Hawkins, J. D., Kosterman, R., Catalano, R. F., Hill, K. G., & Abbott, R. D. (2005). Promoting positive adult functioning through social development intervention in childhood: Long-term effects from the Seattle Social Development Project. Archives of Pediatrics and Adolescent Medicine, 159, 25-31.
- Hawkins J. D., Von Cleve E, Catalano R. (1991). *Reducing early childhood aggression: Results of a primary prevention program*. Journal of the American Academy of Child and Adolescent Psychiatry, 30: 208-217.
- Lonczak, H. S., Abbott, R. D., Hawkins, J. D., Kosterman, R., & Catalano, R. F. (2002). Effects of the Seattle Social Development Project on sexual behavior, pregnancy, birth, and STD outcomes by age 21. Archives of Pediatrics and Adolescent Medicine, 156(4), 438-447.
- O'Donnell, J., Hawkins, J.D., Catalano, R.F., Abbott, R., & Day, L.E. (1995). *Preventing School Failure, Drug Use, and Delinquency among Low-Income Children: Long-Term Intervention in Elementary Schools*. American Journal of Orthopsychiatry, 65(1): 87-100.
- Hawkins, J. D., Kosterman, R., Catalano, R. F., Hill, K. G., & Abbott, R. D. (2008). Effects of social development intervention in childhood fifteen years later. Archives of Pediatrics and Adolescent Medicine, 162, 1133-1141.

Intervention effects are summarized on the following table.

Summary of Seattle Social Development Project Intervention Findings  
 J. David Hawkins, PI

Summary of SSDP Intervention Findings by Age.

At the end of the 2 <sup>nd</sup> grade	Less aggressive and significantly less externalizing-antisocial, and experimental group girls were rated significantly less self-destructive compared to controls; all other results were in the expected direction but not significant.
At the start of 5 <sup>th</sup> grade	Less initiation of alcohol use and delinquency, and significantly better family management, family communication, family involvement, attachment to family, school reward, school attachment, and school commitment, compared to controls.
At the end of 6 <sup>th</sup> grade	Intervention low-income girls were significantly less likely to initiate cigarette use, and more likely to report classroom and team learning opportunities, more classroom participation, more bonding and commitment to school, and fewer opportunities to get marijuana; and intervention group low-income boys were significantly more likely to report improved social skills, school work, and commitment to school, to have better achievement test scores and grades, and less likely to have antisocial peers, compared to controls
By late adolescence (age 18)	Lifetime violence, heavy alcohol use, lifetime sexual activity, and lifetime multiple sex partners, improved school commitment, school attachment, and school achievement, and reduced school misbehavior,
poverty-by-condition interactions (age 18)	Youths in the full intervention from poor families were significantly more likely to report improved school attachment and reduced grade repetition, and youths in the full intervention from working and middle class families were significantly less likely to report teen pregnancy and parenthood
gender-by-condition interactions (age 18)	Boys in the full intervention were significantly less likely to report grade repetition and sexual activity
Age 13 to 18	School bonding declined in a linear fashion from age 13 to 18, and the rate of decline was slower in the full intervention group, compared to the control group. While the effect of the intervention on the rate of decline in school bonding was not statistically significant, the level of school bonding in the full intervention group was significantly higher at ages 16 and 18 ( $p < .05$ ), compared to controls. statistically significant differences were found.
Age 21	Full-intervention group reported significantly fewer sexual partners and a greater probability of condom use at last intercourse, compared to controls. Significantly fewer females in the full intervention had become pregnant, and significantly fewer had given birth by age 21. Among African Americans, those in the full intervention condition were significantly more likely to use a condom, and significantly fewer had contracted a sexually transmitted disease by age 21.
Age 21	Broad significant effects on functioning in school and work (constructive engagement, high school graduation, integrated at school, employed in the past month, years at present job, constructive self-efficacy), and on emotional and mental health (emotion regulation, symptoms of social phobia, suicidal thoughts, with marginal effects on depressive symptoms and diagnosis) were found.
Age 24-27	A significant multivariate intervention effect across all 16 primary outcome indices was found. Specific effects included significantly better educational and economic attainment, mental health, and sexual health by age 27 (all $p < .05$ ). Specifically: Median SES attainment index , Civic engagement index , Completed associate degree , Integrated at school , Responsibility on job , Disorder criterion index, Disorder diagnosis index , GAD criterion count, PTSD criterion count, MDE criterion count, Suicide thoughts, Lifetime STD index , Past-year crime index.