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*Bringing out the best in people*

## **Research Summary of the 2008-2009 Randomized Controlled Trial**

### **Effectiveness of the Capturing Kids' Hearts Process**

*Full Research Report also available:*

Holtzapple, C.K., Griswold, J.S., Cirillo, K., Rosebrock, J., Nouza, N., & Berry, Cami (2010). Implementation of a School-Wide Adolescent Character Education and Prevention Program: Evaluating the Relationships Between Principal Support, Faculty Implementation, and Student Outcomes.

A comprehensive research report submitted to Oneida-Herkimer-Madison BOCES (NY) and Riverside County (CA) Office of Education (RCOE)

**Implementing Capturing Kids' Hearts Campus by Design: Effects on Student Pro-Social Skills and Negative Behavior**

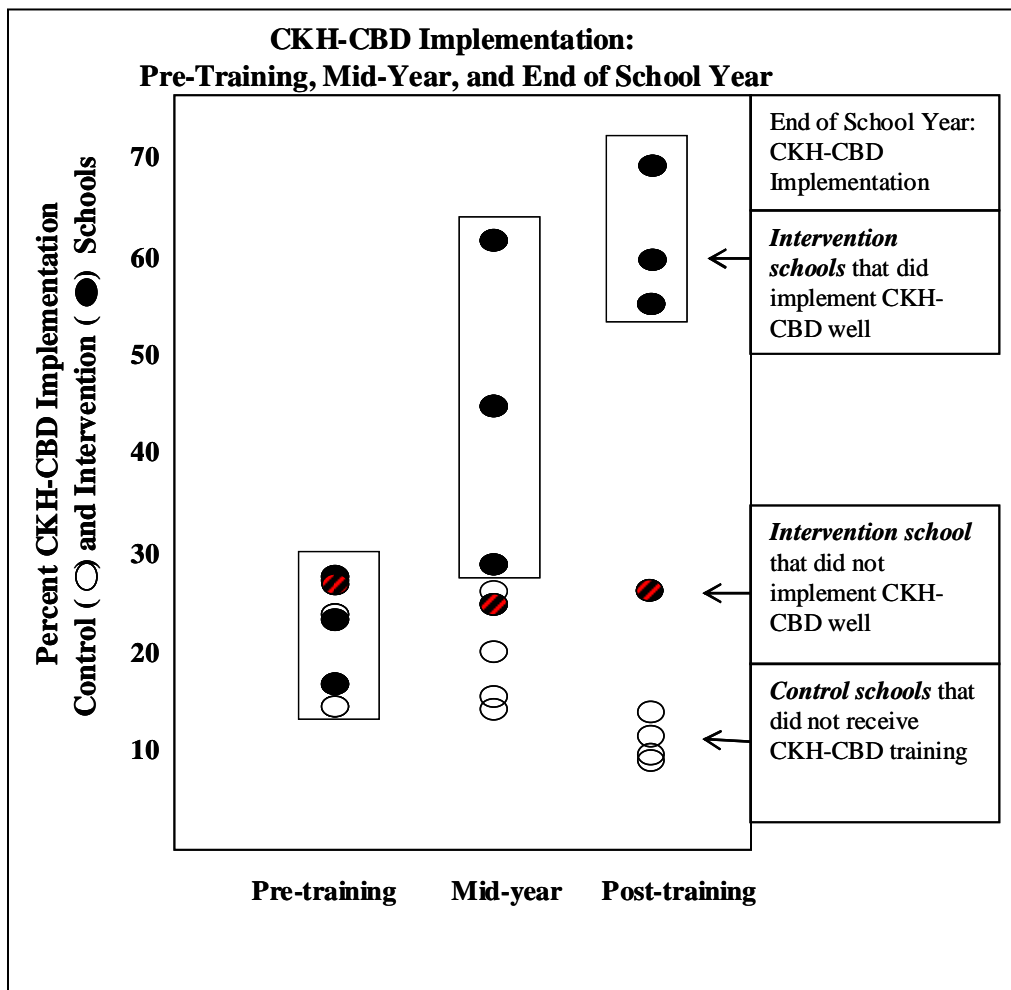
<b>Region</b>	New York, California
<b>Principal Investigator</b>	Carol Holtzapple, Ph.D. (Director of Research & Planning, The Flippen Group) (Site coordinators: Suzy Griswold, TFG; Noreen Nouza, BOCES; Cami Berry, RCOE)
<b>Study Purposes and Questions</b>	The purpose of this study is to determine the effectiveness of Capturing Kids' Hearts Campus by Design, a comprehensive educational process designed to improve pro-social interactions and positive character development while reducing negative behaviors in high school students. The primary research questions are: <ol style="list-style-type: none"> <li>1. Does implementing the Capturing Kids' Hearts Campus by Design significantly improve pro-social interactions?</li> <li>2. Does implementing the Capturing Kids' Hearts Campus by Design significantly decrease negative behaviors?</li> </ol>
<b>Intervention</b>	The Capturing Kids' Hearts Campus by Design process was developed by The Flippen Group and is based upon the social-cognitive learning approach. Implementation of this process changes the culture of a school through: <ol style="list-style-type: none"> <li>1. Development of healthy relationships that promote a safe learning environment.</li> <li>2. Establishment of clear behavioral expectations school-wide.</li> <li>3. Intentional modeling of desired pro-social, relational skills by administrators and teachers.</li> <li>4. Student acquisition of pro-social skills that impact behavioral outcomes.</li> </ol>
<b>Design and Samples</b>	This study is a randomized, controlled blocked trial that includes 4 intervention schools that implemented Capturing Kids' Hearts Campus by Design and 4 comparison schools that continued with their normal practices. Schools were randomized from matched pairs. All high schools are part of the Oneida-Herkimer-Madison BOCES (NY) or the Riverside County Office of Education (RCOE-CA) school systems.
<b>Outcome Measures</b>	Increase in pro-social skills and behaviors (e.g., respect, communicative competencies,) Decrease in negative behaviors (e.g. fighting, disciplinary referrals).
<b>Results</b>	Schools implementing CKH-CBD produced increases in student protective factors (student acquisition of pro-social skills) and decreases in student risk factors (negative behaviors such as discipline referrals). Students in intervention schools demonstrated a 40% increase in pro-social skills (respect, caring concern, communicative competencies, citizenship, and problem solving) compared with students in control schools. Discipline referrals decreased significantly in the intervention schools compared with those observed in control schools. Univariate ANOVA yielded a standardized effect size ( <i>Hedge's g</i> ) of -2.1 (significant decrease in discipline referrals in intervention schools compared with control schools).
<b>Study Period</b>	2008-2009
<b>Contact</b>	Dr. Carol Holtzapple 979-595-3411 carol.holtzapple@flippengroup.com

## Implementation

Schools were evaluated for fidelity of program implementation by teachers and principals. Pre- and post-training surveys as well as two per campus on-site evaluations were used to measure implementation of the leadership skills (communication skills, relational skills and classroom management strategies) taught in CKH-CBD.

Figure 1 demonstrates that faculty at all of the schools started out with similar baseline levels of leadership skills specific to CKH-CBD. By mid-year, the intervention schools had implemented CKH-CBD specific skills to varying degrees. By the end of the school year, it is clear that 3 of the intervention schools implemented CKH-CBD with greater than 60% fidelity whereas 1 intervention school failed to implement above baseline levels the skills taught in the training.

**Figure 1: Implementation of CKH-CBD**



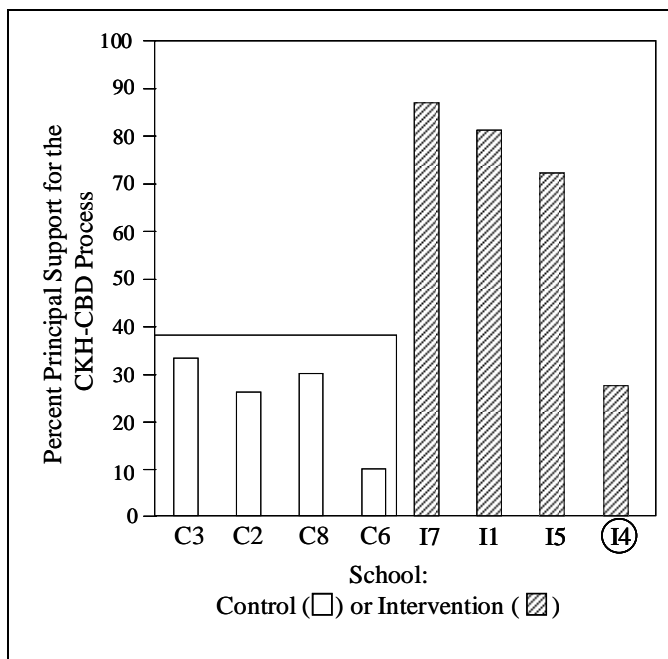
Because of the importance of school leadership in implementing new programs, we investigated (a) the level of support provided by the principal, (b) the correlation between principal support and teacher modeling the skills, and (c) the correlation between teacher modeling the skills and student acquisition of pro-social outcomes (respect, caring concern for others, communicative competencies, problem-solving). We also measured the effects of CKH-CBD on the number of discipline referrals.

### Leadership Support

The support exhibited by the principal (as measured by direct observation of CKH-CBD behaviors and skills at the end of the year) was determined as shown below. Principals in 3 of the intervention schools implemented CKH-CBD with greater than 70% fidelity whereas the principal in 1 of the intervention schools (I4) implemented the process with less than 30% fidelity. This level of CKH-CBD-specific skills is similar to that demonstrated by the untrained control schools as can be seen in Figure 2.

The results from the 4 CONTROL school principals are shown in the small box. Note that the principals demonstrate “support” because the principals already exhibited some of the leadership skills/abilities/behaviors that CKH-CBD teaches.

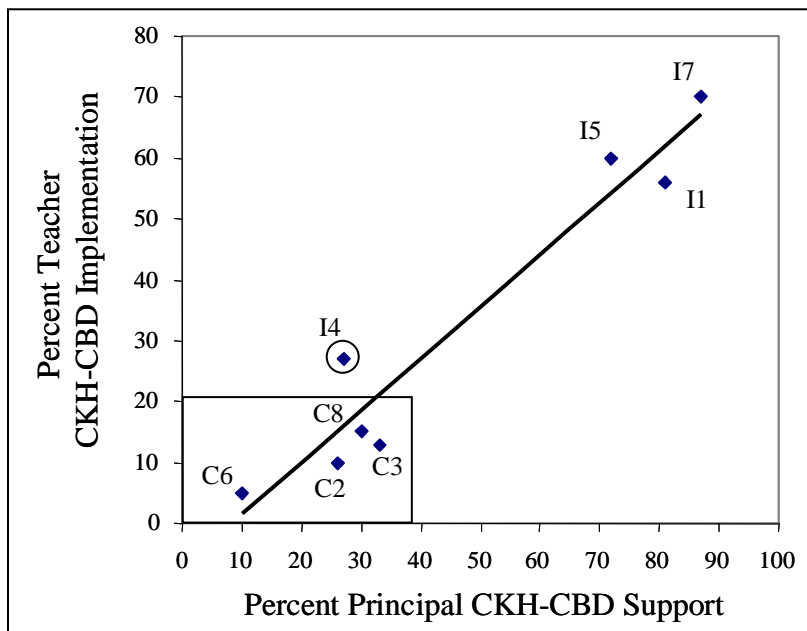
**Figure 2.** Principal Support for CKH-CBD



## Teacher Implementation (modeling) vs. Principal Support

The level of teacher modeling CKH skills was determined using direct observation evaluation methods. The correlation between level of teacher implementation (modeling) and principal support was determined as shown below. With a low level of principal support for the process, there was a correspondingly low level of teacher implementation in the classroom (see data point with circle around it). The data points from the control schools are within the small box. The data points for the intervention schools that implemented the process well are clustered in the top right quadrant of the graph.

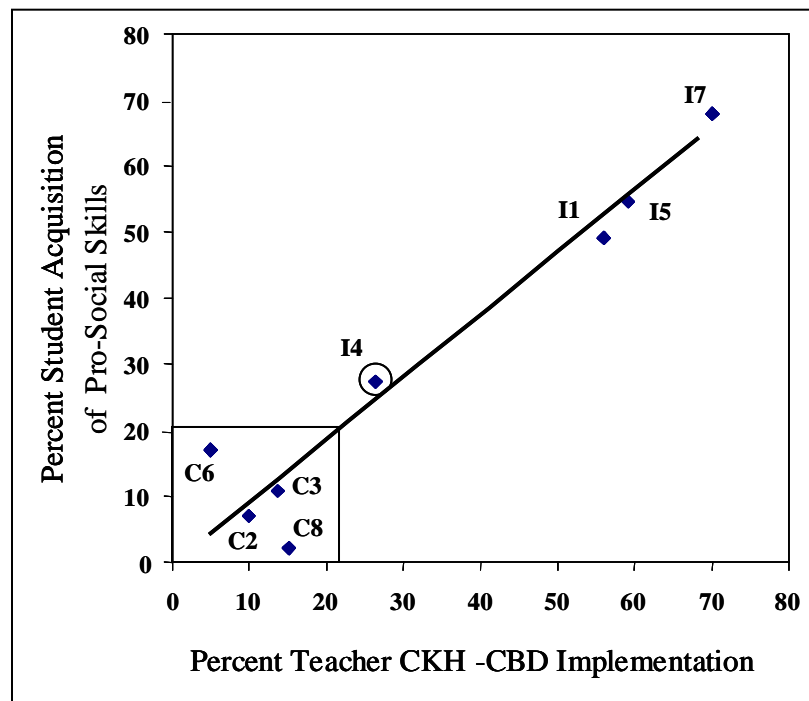
**Figure 3.** Teacher Implementation vs. Principal Support



## Acquisition of Student Pro-Social Outcomes vs. Teacher CKH-CBD Implementation

The level of student acquisition of CKH-CBD skills was determined using direct observation evaluation methods. The correlation between the level of student acquisition of pro-social skills (respect, caring concern for others, communicative competencies, problem-solving) and teacher implementation (modeling) of those skills was determined as shown below. With a low level of teacher implementation of the CKH-CBD skills/behaviors, there was a correspondingly low level of student acquisition of pro-social skills (see data point with circle around it that represents the intervention school that did not implement CKH-CBD well). The data points from the control schools are within the small box. The data points for the intervention schools that implemented the process well are clustered in the top right quadrant of the graph.

**Figure 4.**  
Student Acquisition of Pro-Social Skills vs. Teacher Implementation

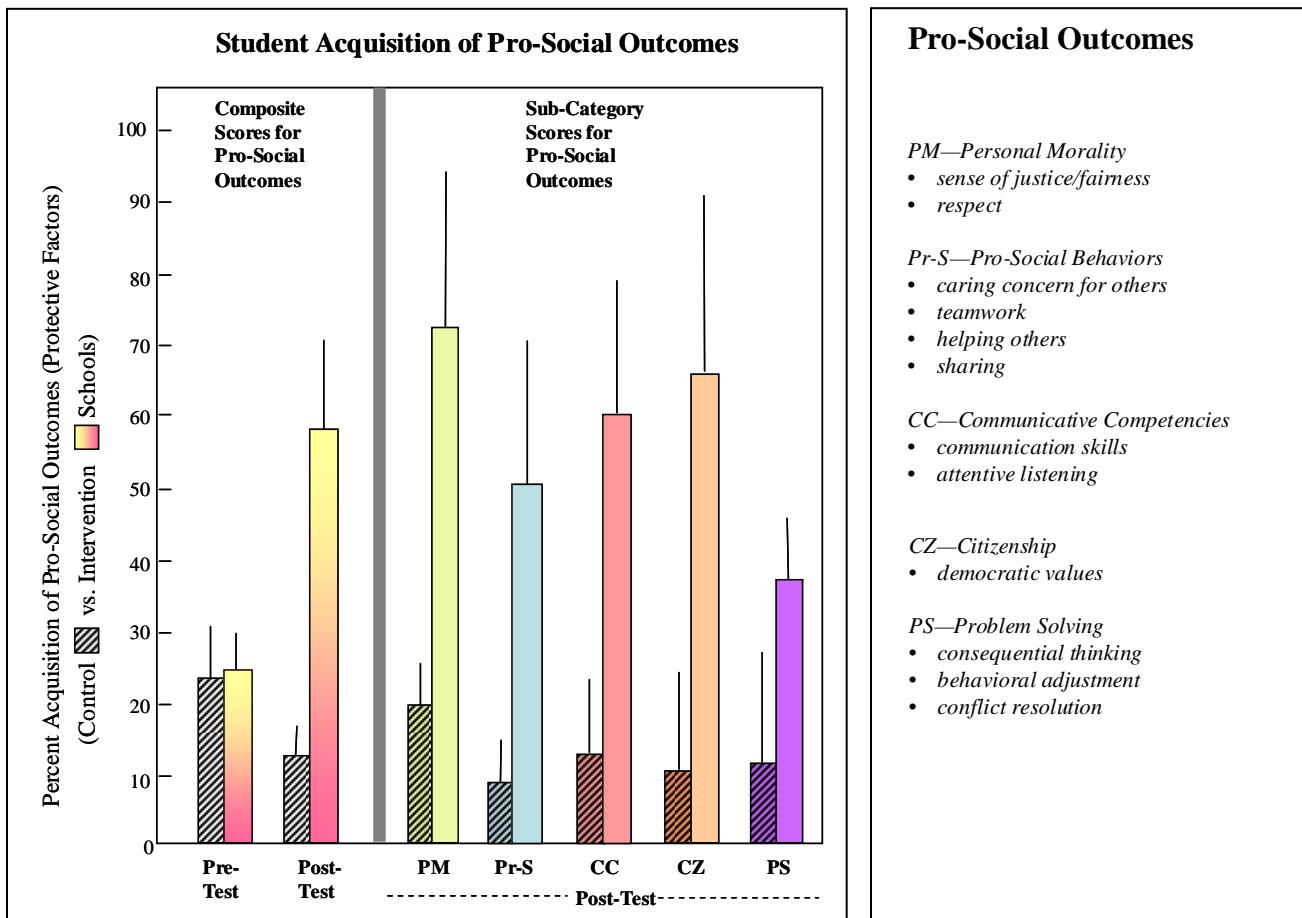


## Analyses of Student Pro-Social Outcomes

Student pro-social outcomes were classified according to the taxonomy of outcomes presented by Berkowitz & Bier (2005) in a research guide for educators. Direct observation was used to detect changes in personal morality (PM; *respect, sense of justice and fairness*), pro-social behaviors (Pr-S; *caring concern for others, teamwork, helping others, sharing*), communicative competencies (CC; *communication skills, attentive listening*), citizenship (CZ; *democratic values*), and problem solving (PS; *consequential thinking, behavioral adjustment, conflict resolution*).

As can be seen in Figure 5, pro-social outcomes increased from 24% (pre-study) to 57% (post study) in the intervention schools whereas they decreased from 23% (pre-study) to 12% (post-study) in the control schools. These outcomes were divided into subcategories, and the scores for these subcategory outcomes are provided.

**Figure 5. Pro-Social Outcomes.** Pre-test and post-test composite scores for pro-social outcomes are provided on the left-hand side of the graph. The post-test composite scores subcategory scores for personal morality (PM), pro-social behavior (Pr-S), communicative competencies (CC), citizenship (CZ), and problem solving (PS) are provided on the right-hand side of the graph.



## Discipline Referral Data

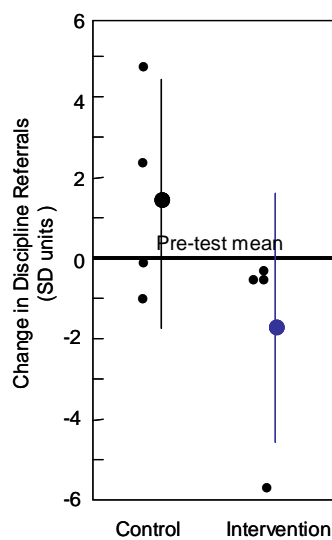
All schools were asked to provide the discipline referrals for the 3 years preceding the study as well as for the 2008-2009 school year. School means and standard deviations were computed in order to determine effect sizes.

**Figure 6. Changes in Discipline Referrals using Standard Deviation Units.** Small dots represent individual schools; large dots with lines through them represent the mean change (with error bars) for each group of four schools.

### **CONTROL SCHOOLS**

*Positive values indicate increases in discipline referrals. In the study, 2 of the control schools experienced increases in discipline referrals and 2 schools experienced a decrease in referrals. The average change was an increase in discipline referrals equivalent to an average of 1.7 SD units (corresponding to an 11% increase).*

*Average 11% INCREASE in referrals*



### **INTERVENTION SCHOOLS**

*Negative values indicate decreases in discipline referrals. In this study, all schools that implemented CKH-CBD reported a reduction in discipline referrals, with the mean change being -1.8 SD units (corresponding to a 22% decrease).*

*Average 22% DECREASE in referrals*



## Conclusions

The conclusions from the BOCES/RCOE randomized controlled trial are drawn from the preceding figures:

1. **Implementation:** Some intervention schools were able to implement CKH-CBD well without the addition of Process Champions and TrAction Pacs; however, other intervention schools required these additional CKH-CBD components in order to implement the process well (>60% implementation). All intervention schools that implemented the process well benefited from implementing the entire CKH-CBD process. (See mid-year implementation levels obtained after CKH only vs. the end of year implementation levels obtained after all CKH-CBD components were implemented...Figure 1.)
2. **Leadership Support:** Principals in intervention schools provided varying levels of support for CKH-CBD (Figure 2).
3. **Impact of Leadership Support on Teacher Implementation:** There was a direct, linear correlation between the level of support exhibited by school leadership (principal) and the level of CKH-CBD implementation by teachers in the classroom (Figure 3).
4. **Impact of Teacher Modeling on Skill-Acquisition by Students:** Student pro-social outcomes (respect, caring concern, communicative competencies, citizenship, and problem solving) were linearly correlated to teacher modeling of the skills (Figure 4).
5. **Impact of the Program on Student-Level Pro-social Outcomes:** The mean level of relational skills in students increased in the intervention schools (Figure 5).
6. **Impact of the Program on Discipline Referrals:** The mean number of discipline referrals decreased in the intervention schools and represented an average 22% decrease. (Figure 6).

The BOCES/RCOE study provides valuable research design information that will aid organizations in quantifying the effects of the Capturing Kids' Hearts process. It also demonstrates the positive effects on student-level outcomes that are produced as a result of implementing the process with at least 60% fidelity.

**APPENDIX: Supporting studies demonstrating the effectiveness of Capturing Kids' Hearts in conjunction with implementation of the advanced training program and curriculum, Teen Leadership**

**Outcome: Academic achievement**

<b>Description of Measures</b>	Academic achievement was measured using passing rates in English, Math, and Social Studies from the previous year's (2001) first six weeks, the total freshman class passing rate in the first six weeks of 2002, and the passing rate of Capturing Kids' Hearts/Teen Leadership students in the first six weeks of 2002.
<b>Key Findings</b>	<p>In six weeks, intervention students had higher passing rates in English classes (95.5%) than did control students (76.2%).</p> <p>In six weeks, intervention students had higher passing rates in Math classes (92.6%) than did control students (80.7%).</p> <p>In six weeks, intervention students had higher passing rates in Social Studies classes (98.5%) than did control students (91.0%).</p>
<b>Studies Measuring Outcome</b>	<p>Sherwood, R. (2003). It all began with a handshake, <i>The Effective Schools Project Journal</i>, 9: 6-11.</p> <p><a href="http://www.flippengroup.com/pdf/funding/ESPfinal03.pdf">http://www.flippengroup.com/pdf/funding/ESPfinal03.pdf</a></p>
<b>Study Designs</b>	Quasi-experimental

## Outcome: Problem behaviors

<b>Description of Measures</b>	Change from baseline for problem behavior was measured using school-level archival data for attendance and for disciplinary referrals, which included suspensions and incidents related to violence, disobedience, use of alcohol, tobacco, and other drugs, and violations of school rules.
<b>Key Findings</b>	<p>The attendance rate for students in the intervention group was 2.4% higher than the attendance rate for all students (98% vs. 95.6%)</p> <p>In a second study, at-risk seventh and eighth grade students enrolled in the Teen Leadership Program were randomly assigned to treatment or control groups. Mann-Whitney U Test distributions for office referral ranks pre- and post-treatment demonstrated that students in the treatment group on average experienced a greater decrease in the number of office referrals for disciplinary reasons when compared with those in the control group.</p>
<b>Studies Measuring Outcome</b>	<p>Sherwood, R. (2003). It all began with a handshake, <i>The Effective Schools Project Journal</i>, 9: 6-11.  <a href="http://www.flippengroup.com/pdf/funding/ESPfinal03.pdf">http://www.flippengroup.com/pdf/funding/ESPfinal03.pdf</a></p> <p>Castro, V., Johnson, M. B., &amp; Smith, R. (2008). Self-reported resilient behaviors of seventh and eighth grade students enrolled in an emotional intelligence based program. <i>Journal of School Counseling</i>, 6(27). Retrieved from  <a href="http://www.jsc.montana.edu/articles/v6n27.pdf">http://www.jsc.montana.edu/articles/v6n27.pdf</a></p>
<b>Study Designs</b>	Quasi-experimental; Experimental

## Outcome: General Socio-Emotional

<b>Description of Measures</b>	<p>Student perceptions of their own personal development in regards to obtaining leadership skills were measured using two subscales (attitude toward group work and personal development) of the Leadership and Personal Development Inventory.</p> <p>Adolescent feelings of loneliness were measured using the Revised UCLA Loneliness Scale, a 20-item, Likert-type assessment for measuring several aspects of loneliness. Each item has a minimum score of one, indicating the least lonely position, and a maximum score of 4, indicating the most lonely position. Thus, the total score has a potential for a minimum “least lonely” score of 20 to a maximum “most lonely” score of 80.</p> <p>The extent of openness or freedom to exchange ideas, trust and honesty, and emotional tone of interaction were measured using two subscales (open family communication and problems in family communication) of the Parent-Adolescent Communication Scale.</p> <p>Students’ self-esteem was measured using the Texas Social Behavior Inventory, a 16-item Likert-type assessment that measures self-confidence as well as confidence in social situations.</p> <p>Students’ connectedness and ability to make smart choices were measured using the Teen Leadership Student Survey and through interviews using semi-structured, open-ended questioning strategies.</p>
<b>Key Findings</b>	<p>The 10-week intervention focused on building social skills, facilitating supportive social bonds, restructuring negative thought patterns about self and others, introducing coping strategies for dealing with loneliness, developing communication skills, and enhancing pro-social involvement with the school, community, peers, and parents.</p> <p>The results indicate that the program is effective in increasing self-esteem, attitude toward group work, personal development, mother-adolescent communication and father-adolescent communication. These outcomes did not change significantly in the control group.</p> <p>Simple main effects analyses for the intervention group across time were conducted for each of the following outcomes:</p> <p>Self-esteem (<i>Range 0 – 64</i>) increased 16% from 40.33 to 46.91.</p> <p>Attitude toward group work (<i>Range 25-175</i>) increased 7% from 124.39 to 132.97.</p> <p>Personal development (<i>Range 24-168</i>) increased 8% from 136.36 to 147.25.</p> <p>Loneliness (<i>Range 20-80</i>) significantly decreased 15% from</p>

	<p>37.89 to 32.50.</p> <p>Mother-adolescent communication (Range 20-100) increased 13% from 62.44 to 70.63.</p> <p>Father-adolescent communication (Range 20-100) increased 11% from 60.75 to 67.42.</p> <p>In a third report, intervention students who participated in the semester long Teen Leadership class were significantly more connected to their teachers than students in the control group. Intervention students made significantly smarter choices than those in the control group.</p>
<p><b>Studies Measuring Outcome</b></p>	<p>Cirillo-Teverbaugh, K.J. &amp; Colwell, B. (1993). Effects of a 10-week social-cognitive group intervention on selected psychosocial attributes and interpersonal effectiveness of high school students. Unpublished manuscript, Texas A&amp;M University, College Station, TX.</p> <p>Cirillo-Teverbaugh, K.J. (1994). Adolescent loneliness: Implications and intervention strategies. <i>Eta Sigma Gamma Student Monograph Series</i> 12(1): 1-10</p> <p>Danaher, A.C. (2006). Character Education: The Impact of a Teen Leadership Program, Texas A&amp;M University, Kingsville. Dissertation. Powerpoint presentation retrieved from <a href="http://www.powershow.com/view.php?id=P1252428677PgvnI&amp;t=Character+Education%3A+The+Impact+of+a+Teen+Leadership+Program+on+Student+Connectedness">http://www.powershow.com/view.php?id=P1252428677PgvnI&amp;t=Character+Education%3A+The+Impact+of+a+Teen+Leadership+Program+on+Student+Connectedness</a></p>
<p><b>Study Designs</b></p>	<p>Quasi-experimental; Quasi-experimental; Experimental</p>