FLIPPEN EDUCATION RESEARCH //

EFFECTIVENESS OF THE CAPTURING KIDS' HEARTS® PROCESS

Research Summary of the 2008-2009 Randomized Controlled Trial

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IMPLEMENTING CAPTURING KIDS' HEARTS:
EFFECTS ON STUDENT PRO-SOCIAL SKILLS AND NEGATIVE BEHAVIOR

Region	New York, California
Principal	Carol Holtzapple, Ph.D. (Director of Research, Flippen Group) (Site coordinators: Suzy Griswold, Flippen Group;, Noreen Nouza, BOCES; Cami Berry, RCOE)
Study Purposes and Questions	The purpose of this study is to determine the effectiveness of *Capturing Kids' Hearts*, 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: 1. Does implementing *Capturing Kids' Hearts* significantly improve pro-social interactions? 2. Does implementing *Capturing Kids' Hearts* significantly decrease negative behaviors?
Intervention	The *Capturing Kids' Hearts* process was developed by Flippen Group and is based upon the social-cognitive learning approach. Implementation of this process changes the culture of a school through: 1. Development of healthy relationships that promote a safe learning environment. 2. Establishment of clear behavioral expectations school-wide. 3. Intentional modeling of desired pro-social, relational skills by administrators and teachers. 4. Student acquisition of pro-social skills that impact behavioral outcomes.
Design and Samples	This study is a randomized, controlled blocked trial that includes four intervention schools that implemented *Capturing Kids' Hearts* and four 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.
Outcome	Increase in pro-social skills and behaviors (e.g., respect, communicative competencies). Decrease in negative behaviors (e.g. disciplinary referrals).
Results	Schools implementing *Capturing Kids' Hearts* 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 (Hedge's g) of -2.1 (indicating a significant decrease in discipline referrals in intervention schools compared with control schools).
Study Period	2008-2009
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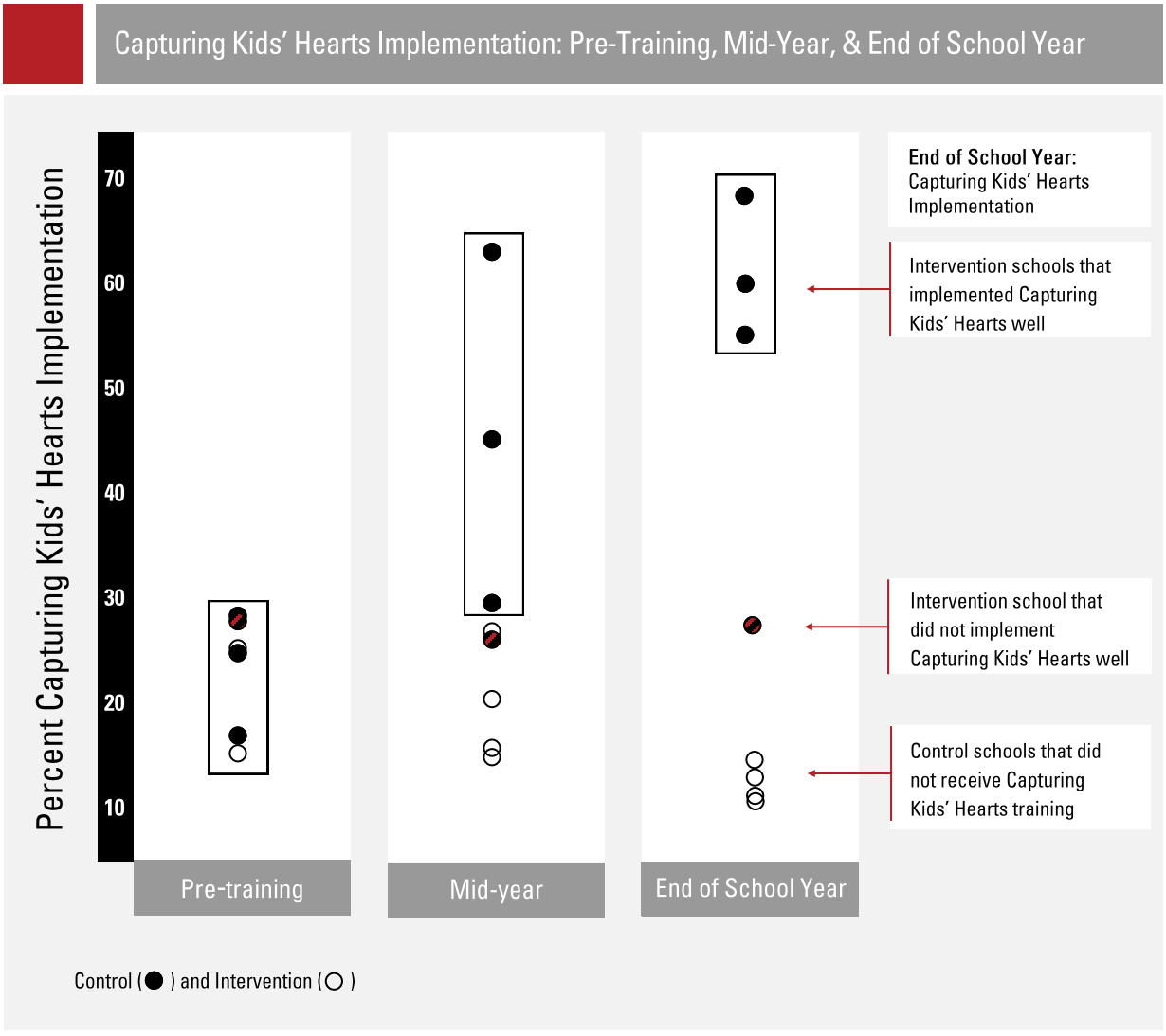
IMPLEMENTATION

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 *Capturing Kids' Hearts*.

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

Figure 1: Implementation of Capturing Kids' Hearts



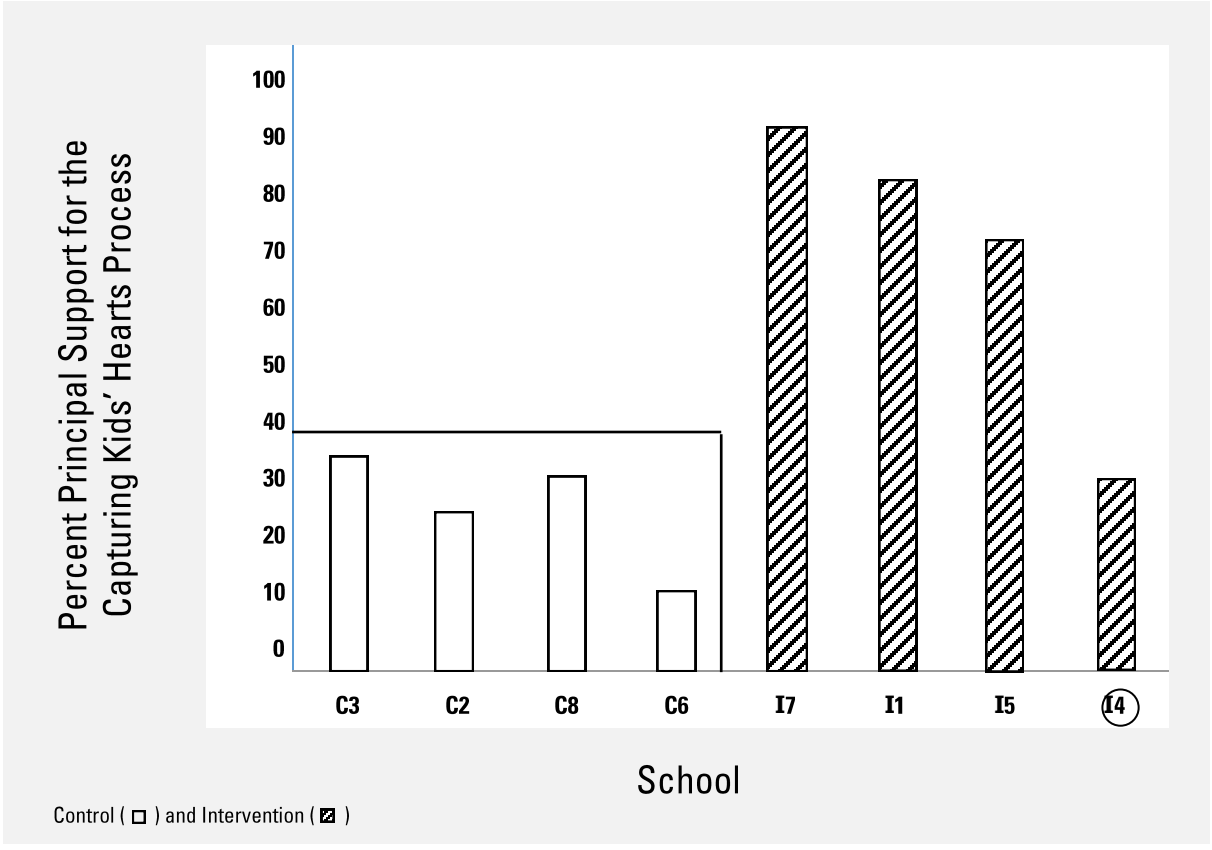
Because of the importance of school leadership in implementing new programs, we investigated (a) the level of support provided by the principal, (b) the correlation between principal support and teacher modeling of the skills, and (c) the correlation between teacher modeling of the skills and student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

Leadership Support

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

The results from the four 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 *Capturing Kids' Hearts* teaches.

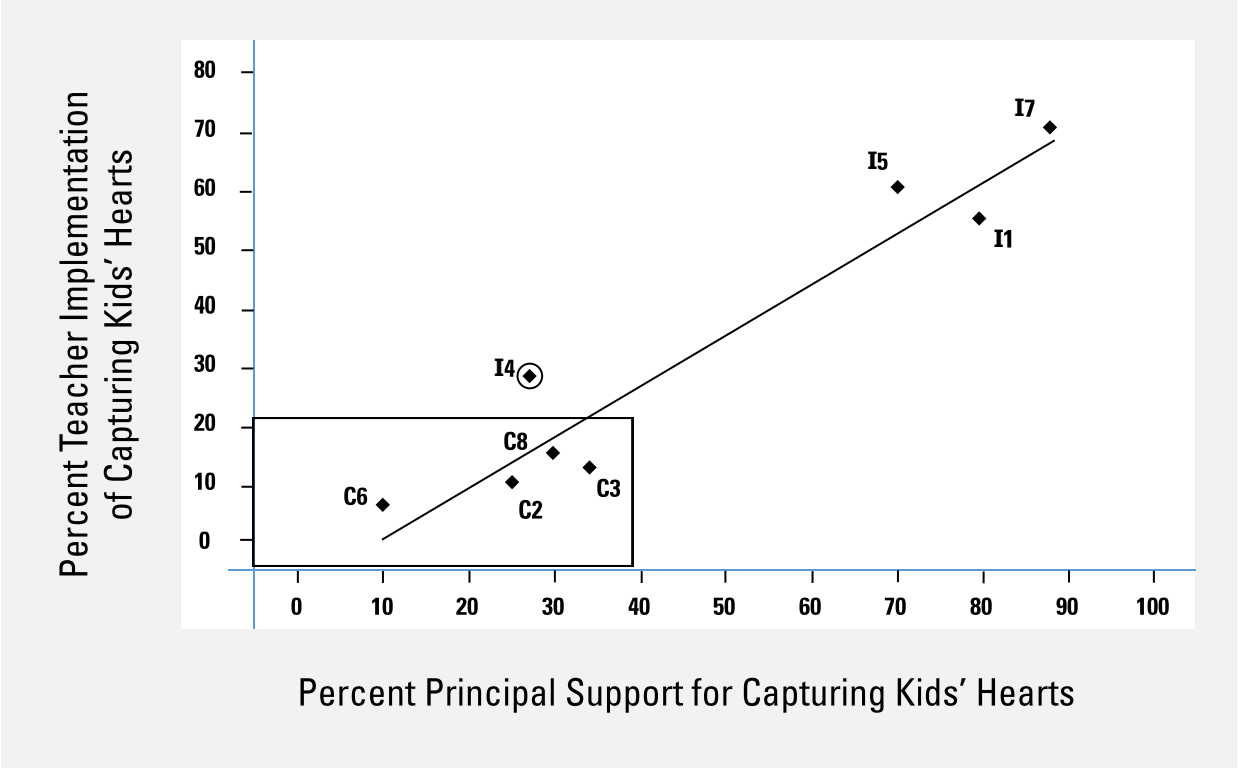
Figure 2: Principal Support for the Capturing Kids' Hearts Process



TEACHER IMPLEMENTATION (MODELING) VS. PRINCIPAL SUPPORT

The level of teacher modeling of *Capturing Kids' Hearts* skills was determined using direct observation evaluation methods. The correlation between levels 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.

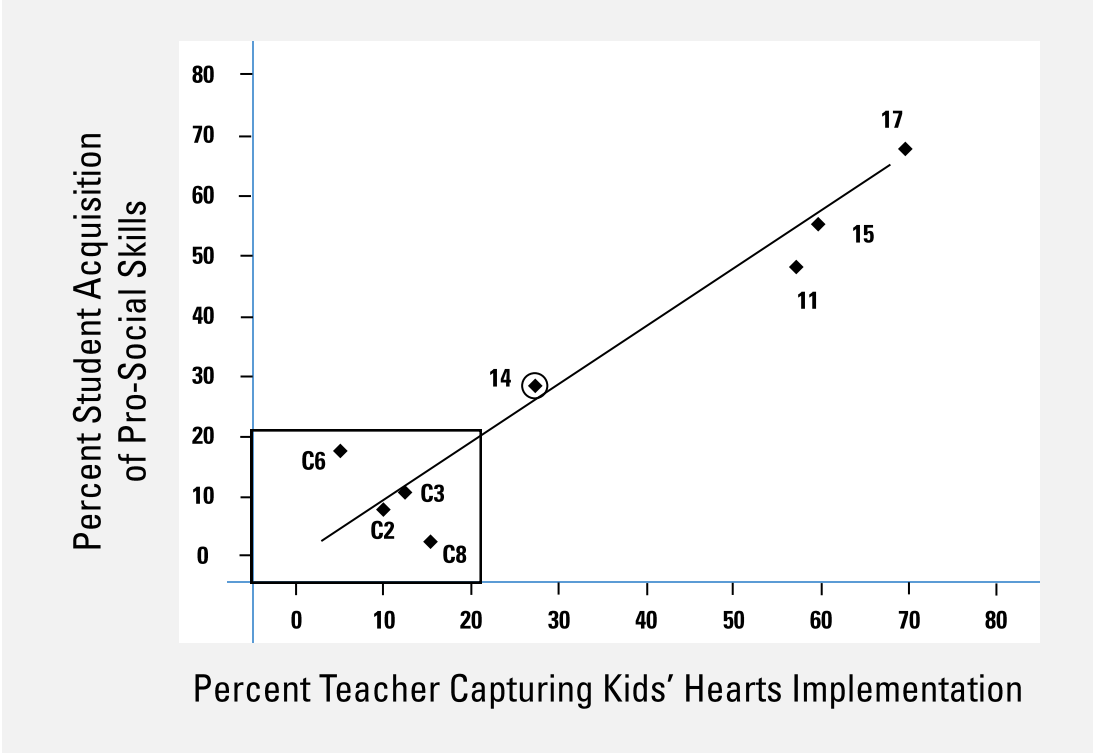
Figure 3: Teacher Implementation vs Principal Support



STUDENT ACQUISITION OF PRO-SOCIAL OUTCOMES VS. TEACHER IMPLEMENTATION OF CAPTURING KIDS' HEARTS

The level of student acquisition of *Capturing Kids' Hearts* pro-social 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 *Capturing Kids' Hearts* 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 *Capturing Kids' Hearts* 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



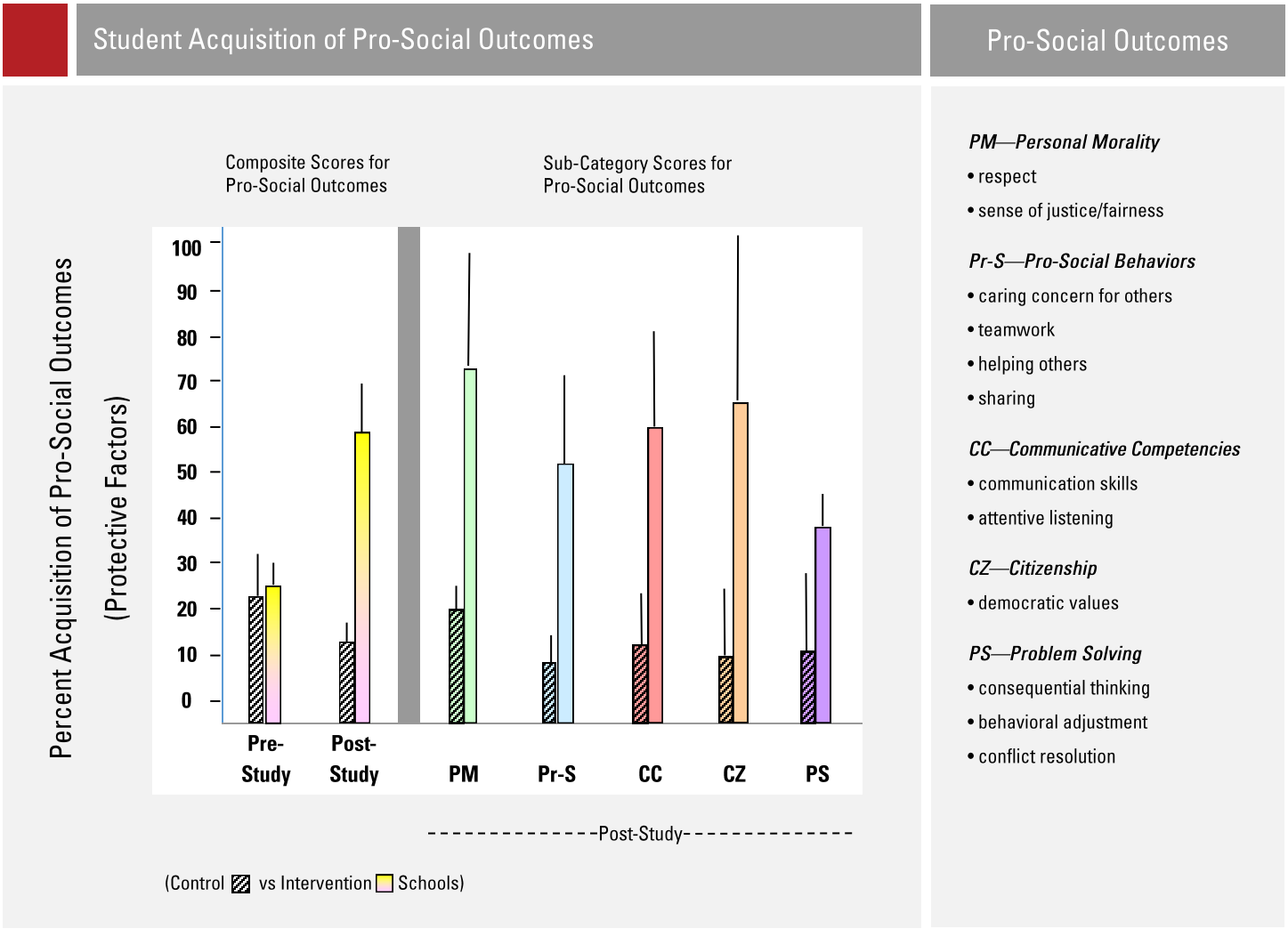
ANALYSES OF STUDENT PRO-SOCIAL OUTCOMES

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-study and post-study composite scores for pro-social outcomes are provided on the left-hand side of the graph. The post-study 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 three 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

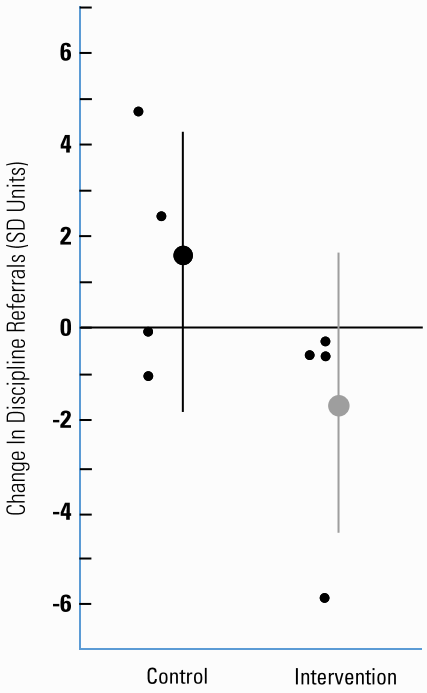
Small dots represent individual schools; large dots with lines through them represent the mean change (with error bars) for each group of four schools.

Control Schools

Positive values indicate increases in discipline referrals.

Two of the control schools experienced increases in discipline referrals and two schools experienced decreases in referrals. The increase in the post-study mean (represented by the large dot at 1.7 SD units on the graph) compared to the pre-study mean (represented by the horizontal line at 0 on the graph) corresponds to an average increase in discipline referrals of 11% for these schools.

Average 11% INCREASE in discipline referrals



Intervention Schools

Negative values indicate decreases in discipline referrals.

All schools that implemented *Capturing Kids' Hearts* reported a reduction in discipline referrals. The decrease in the post-study mean (represented by the large dot at –1.8 SD units on the graph) compared to the pre-study mean (represented by the horizontal line at 0 on the graph) corresponds to an average decrease in discipline referrals of 22% for these schools.

Average 22% DECREASE in discipline 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 *Capturing Kids' Hearts* well without the addition of *Process Champions* and *TrAction Pacs*; however, other intervention schools required these additional *Capturing Kids' Hearts* components in order to implement the process well (>60% implementation). All intervention schools that implemented the process well benefited from implementing the entire *Capturing Kids' Hearts* process. (See mid-year implementation levels obtained after *Capturing Kids' Hearts* only vs. the end of year implementation levels obtained after all *Capturing Kids' Hearts* components were implemented...Figure 1.)
2. **Leadership Support:** Principals in intervention schools provided varying levels of support for *Capturing Kids' Hearts* (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 *Capturing Kids' Hearts* 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 exhibited by students increased from 24% to 57% in the intervention schools (Figure 5).
6. **Impact of the Program on Discipline Referrals:** The number of discipline referrals decreased an average of 22% in the intervention schools (Figure 6).

CITATIONS

Berkowitz, M. & Bier, M. (2005). What works in character education: A research driven guide for educators (Variable Outcome Taxonomy, Table 4). Retrieved from http://education.csufresno.edu/bonnercenter/documents/What_Works.pdf

Holtzapple, C.K. (2011). Measuring behavioral outcomes associated with comprehensive character education programs: A practical approach to using fewer schools in school-randomized controlled trials while maintaining adequate statistical power. J. Research in Character Education 9(1): 57-69.

Holtzapple, C.K., Griswold, J.S., Cirillo, K.J., Rosebrock, J., Nouza, N., & Berry, C. (2011). Implementation of a school-wide adolescent character education and prevention program: Evaluating the relationships between principal support, faculty implementation, and student outcomes. J. Research in Character Education, 9(1):71-90.

Holtzapple, C.K., Griswold, J.S., Weidenfeller, L. (2013). Evaluating educational interventions: An educator's toolkit for designing effective research studies. J. Research in Character Education 9(2): 167-174.

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

Description of Measures	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.
Key Findings	In six weeks, intervention students had higher passing rates in English classes (95.5%) than did control students (76.2%). In six weeks, intervention students had higher passing rates in math classes (92.6%) than did control students (80.7%). In six weeks, intervention students had higher passing rates in social studies classes (98.5%) than did control students (91.0%).
Studies Measuring Outcome	Sherwood, R. (2003). It all began with a handshake, The Effective Schools Project Journal , 9: 6-11. http://www.flippengroup.com/pdf/funding/ESPfinal03.pdf
Study Designs	Quasi-experimental

Outcome: Problem Behaviors

Description of Measures	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.
Key Findings	The attendance rate for students in the intervention group was 2.4% higher than the attendance rate for all students (98% vs. 95.6%). 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.
Studies Measuring Outcome	Sherwood, R. (2003). It all began with a handshake, The Effective Schools Project Journal , 9: 6-11. http://www.flippengroup.com/pdf/funding/ESPfinal03.pdf Castro, V., Johnson, M. B., & Smith, R. (2008).Self-reported resilient behaviors of seventh and eighth grade students enrolled in an emotional intelligence based program. Journal of School Counseling , 6(27). Retrieved from http://jsc.montana.edu/articles/v6n27.pdf
Study Designs	Quasi-experimental; Experimental

Outcome: General Socio-Emotional

Description of Measures

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.

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.

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.

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.

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.

Key Findings

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.

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.

Simple main effects analyses for the intervention group across time were conducted for each of the following outcomes:

Self-esteem (Range 0 – 64) increased 16% from 40.33 to 46.91.

Attitude toward group work (Range 25-175) increased 7% from 124.39 to 132.97.

Personal development (Range 24-168) increased 8% from 136.36to 147.25.

Loneliness (Range 20-80) significantly decreased 15% from 37.89 to 32.50.

Mother-adolescent communication (Range 20-100) increased 13% from 62.44 to 70.63.

Father-adolescent communication (Range 20-100) increased 11% from 60.75 to 67.42.

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.

Studies Measuring Outcome	Cirillo-Teverbaugh, K.J. & 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&M University, College Station, TX. Cirillo-Teverbaugh, K.J. (1994). Adolescent loneliness: Implications and intervention strategies. Eta Sigma Gamma Student Monograph Series 12(1): 1-10 Danaher, A.C. (2006). Character Education: The Impact of a Teen Leadership Program, Texas A&M University, Kingsville. Dissertation. PowerPoint presentation retrieved from http://www.powershow.com/view.php?id=P1252428677PgvnI&t=Character+Education3A+The+Impact+of+a+Teen+Leadership+Program+on+Student+Connectedness
Study Designs	Quasi-experimental; Quasi-experimental; Experimental