Linking School Counselors and Student Success: A Replication of the Student Success Skills Approach Targeting the Academic and Social Competence of Students

This study involved the replication of previously reported research examining a school counselor-led intervention using a structured group counseling approach aimed at improving the academic and social competence of elementary and middle school students. The goal of this replication was to strengthen support for the intervention while contributing to the widely called for body of empirically based school counseling outcome research. Mid- to low-range-performing students in grades 5 and 6 participated. Gains in student academic achievement and behavior are reported and compared to positive outcomes from previous studies.

School counselor outcome data aimed at improved student learning are receiving increased amounts of attention and reflect trends within the school counseling profession and the larger educational community (Green & Keys, 2001; House & Hayes, 2002; Isaacs, 2003; Lapan, 2001; Myrick, 2003; Paisley & Hayes, 2003). This article outlines the replication of a school counselor-led intervention that was found to improve the academic achievement and social competence of participating students in previous studies (Brigman & Campbell, 2003; Campbell & Brigman, 2005).

The Student Success Skills (SSS) intervention in each study focused on three skill sets consistently identified in extensive reviews of research as contributing to improved academic and social outcomes for students (Hattie, Biggs, & Purdie, 1996; Masten & Coatsworth, 1998; Wang, Haertel, & Walberg, 1994). These skill sets include (a) cognitive and metacognitive skills such as goal setting, progress monitoring, and memory skills; (b) social skills such as interpersonal skills, social problem solving, listening, and teamwork skills; and (c) self-management skills managing attention, motivation, and anger.

The SSS studies are built on a research base supporting the efficacy of counseling children and adolescents in schools (Hoag & Burlingame, 1997; Nelson, Young, & Obrzut, 1998; Shechtman, 2002; Weisz, Weersing, & Valeri, 1997) and contribute to the widely called for body of outcome research specifically linking school counselors to improved academic and social performance of children and adolescents. The SSS studies come at a time when demands for increased accountability regarding student academic achievement outcomes permeate the educational literature. These studies also come at a time when school counselors are examining their role and unique contributions in the educational process.

INCREASED ACCOUNTABILITY

Counselors are being asked to be increasingly accountable for their work with students. This increased accountability involves a shift from only studying what counselors do to examining outcomes demonstrating how students are different as a result of what counselors do (Isaacs, 2003; Wong, 2002). Whiston and Sexton (1998) suggested the need to increase the evidence that school counselors have a significant impact on students by increasing the amount of outcome research in school counseling. Since the Whiston and Sexton study, the stakes have been raised, but few empirical studies have been reported.

Whiston (2002) now identifies the present as a critical time for leaders in school counseling to support school counseling research providing hard data to support claims that counselors do make a difference. Other researchers also have called for more research to support school counselor efficacy and accountability (Fairchild, 1994; Otwell & Mullis, 1997; Prout & Prout, 1998). These reviews also emphasize the need for empirical research related to student performance. The SSS studies are empirically based and focus on linking school counselor interventions to student academic and social performance.

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COUNSELORS AS PART OF THE EDUCATIONAL PROCESS

Legislative policy, including the federal No Child Left Behind Act of 2001 (U.S. Department of Education), standards-based reform measures, and school improvement initiatives all are centered on academic achievement as a measure of accountability. These federal and state policies call for the enhancement of educational opportunities for all students. School counselors often are seen as secondary to the mission of the schools. Consequently, counselors are not included as an integral part of standards-based reform measures aimed at improved academic and social outcomes for students (Anderson & Reiter, 1995; House & Martin, 1998).

Robert Myrick (2003), a leader in the field of school counseling, recently addressed this concern by reemphasizing the need for school counselors to show how they are part of the educational process and how they contribute to helping students learn more effectively. House and Hayes (2002) concurred while suggesting that systematic change in our schools will be difficult without the involvement of all key players in the school setting including the school counselor. The Education Trust’s (2001) National Initiative for Transforming School Counseling has gone further and promotes counselor use of interventions that are linked to improved student academic achievement.

The combination of increased accountability and an emphasis on achievement outcomes creates a unique opportunity for school counselors to become more closely tied to the educational process affecting academic outcomes. This trend began to gain significant momentum with the development of the National Standards for School Counseling Programs in 1997 (Campbell & Dahir, 1997). These standards connect school counseling to education initiatives and the educational mission of schools and districts. The American School Counselor Association (ASCA, 2003) followed with frameworks to support implementation of those standards. The SSS model for helping students gain the academic and social competence they need to be successful in school is a direct fit with academic and personal/social standards outlined in the ASCA National Model®.

PURPOSE OF THIS STUDY

Empirically proven interventions for school counselors that improve student academic achievement and social competence provide a response to the call for school counselor accountability and the focus on student achievement outcomes. The current study is a follow-up to previous studies in which school counselors were trained to use the Student Success Skills approach with underperforming students in school settings (Brigman & Campbell, 2003; Campbell & Brigman, 2005). Results of previous studies had indicated statistically significant gains in reading and math achievement scores for elementary and middle school students who participated in the SSS intervention when compared to students who did not participate. Teacher-rated behavior related to SSS with elementary and middle school students also improved. The results of the current study complement previous findings and strengthen the link between SSS counselor intervention and improved student academic performance and behavior.

Researchers (Gay, 1996; Schafer, 2001; Sidman, 1960) have suggested the need for replication as evidence that an intervention works. According to Gay, the need for replication is especially great when the results have practical significance and the treatment being investigated might have far-reaching impact. The practical significance and impact of the SSS program are evident as it aligns closely with school and district improvement plans aimed at student achievement. The potential for far-reaching impact also is reflected as replication strengthens empirically based evidence that school counselors can be specifically linked to critical school-based outcomes for all students. Sidman suggested repeating the intervention with different subjects to increase the generalizability of the findings. Schafer added that well-planned replications with strong designs in multiple field contexts lead to stronger inferences than any single study by itself. While significant results were found in each study, the consistency of results across studies leads to the strongest case for the observed relationship between intervention and outcomes.

In addition, the U.S. Department of Education (2003) recently released guidelines to help educators identify and implement educational practices supported by rigorous evidence. The guidelines provide a framework for evaluating whether an intervention is backed by “strong” evidence of effectiveness and include randomized controlled trials across settings.

The research design in the first two studies involved students selected randomly from a pool of students who scored in the same percentile ranges on the Florida Comprehensive Assessment Test (FCAT). The comparison students were in non-treatment schools that were matched with treatment schools according to geographic proximity, race, and socioeconomic level. To test the generalizability of these findings, the next study involved controlled trials using a random selection of students from each school for participation in the study with random assignment of students to treatment and comparison groups within each school. Replication of the intervention expanded the number of controlled trials to...
include 36 schools in two districts involving students in grades 5, 6, 8, and 9. The strengthening of the design and expanded numbers serve to increase the generalizability of results.

**METHOD**

**Participants**
This study involved 418 students from 20 schools. Equal numbers of students were randomly assigned to participate in the SSS counseling intervention group and the comparison group. About half of these students were elementary school students and half middle school students. Approximately 85 percent of the students were White, 4 percent African American, and 9 percent Hispanic. Approximately 45 percent of the students were on free or reduced lunch. Students in both the treatment and comparison groups were randomly selected from all fifth- and sixth-grade students in the participating schools scoring between the 25th and 60th percentile in math and reading on the previous year’s (2002) FCAT.

**Instruments**
Two instruments were used to examine student outcomes. The FCAT (Florida Department of Education, 2002) math and reading scores were used to measure academic outcomes. The FCAT is the state-mandated achievement test for the state of Florida. The FCAT is administered each March. The scores from March 2002 were used as the pretest, and the scores from March 2003 were used as the posttest. “Real-world” objective measures, such as the FCAT, are important when collecting outcome data in the field (U.S. Department of Education, 2003).

A behavior rating scale, the School Social Behavior Scales (SSBS), was used to measure skills considered to be essential to school success (Merrell, 1993). These behaviors included academic skills, social skills, and self-management skills. The SSBS was administered to teachers of the treatment group, but not of the comparison group. The pretest was in September and the posttest was in April. The students’ math teachers were asked to complete the 32-item scale on both occasions. Technical manuals for the FCAT and the SSBS contain studies that support the adequacy of their reliability and validity.

**Research Design**
A pretest-posttest control group design with randomization was used (Campbell & Stanley, 1971). The dependent variables were reading and math scale scores on the FCAT and percentile rank scores on the SSBS. The independent variable was a school counselor-led intervention using the Student Success Skills group counseling program.

The posttest means for treatment students and comparison students on the FCAT were compared. In order to account for differences between treatment students and comparison students at the beginning of the study, an analysis of covariance (ANCOVA) was used to evaluate student FCAT data. The pretest FCAT in 2002 was used as the covariate and the posttest FCAT in 2003 was used as the dependent variable. The .05 level of significance was chosen for this study. For the SSBS, pretest scores from September 2002 were compared to posttest scores from April 2003. No comparison group was available for these behavior rating scores.

**Procedure**
The intervention, provided by school counselors, was structured group counseling focused upon student success skills. A group manual was developed that provided detailed group plans for each session. All of the groups began the first week of October. The groups met for 45 minutes, once a week, for 8 weeks, followed by four “booster” sessions (45 minutes each). The booster sessions met once per month from January through April, to reinforce the skills acquired and motivation achieved in the fall.

The researchers believed that the use of a three-phase, structured group format would help ensure that the counselors would conduct the specific group sessions as they were designed. Each of the three phases of the group format required the use of specific group skills. Each plan combined strategies aimed at helping students develop the academic, social, and self-management skills associated with student success. The beginning and end of each group session focused on goal setting, goal reporting, and progress monitoring related to the three skill areas. The middle of each session focused on student-identified social or academic issues. This provided practice opportunities for students to apply the Student Success Skills Peer Coaching Model (SSSPC). The SSSPC is a social problem-solving model that uses dramatization and feedback as a practical way of teaching children pro-social skills in a systematic, interactive, and fun way. A particular strength of this model is the relevance of the content to the students’ own lives and needs.

Each week, during the group, the students were asked to respond to a seven-item checklist dealing with student success skills. The checklist is geared to the three success skills that anchor the group program: academic, social, and self-management skills. Goal setting, progress monitoring, and memory skills are embedded in this checklist and represent three effective cognitive skills associated with successful students (Hattie et al., 1996).

Twenty-five school counselors participated in the...
As school counselors increase their use of research-based interventions, they can use student outcomes to promote comprehensive guidance and counseling programs to further the school counseling profession.

RESULTS

Performance trends of the fifth- and sixth-grade students with regard to reading and math FCAT scores were examined. Students receiving the treatment scored significantly higher in math than did comparison students. The ANCOVA indicated a significant difference between treatment and comparison students on math FCAT scale scores ($F = 9.796, p < .002$). Eighty-five percent of students in the treatment group improved their math FCAT scores by an average of 27 scale score points. Seventy-three percent of the students in the comparison group showed improvement on the math FCAT with an average gain of 11 scale score points.

Statistical significance using an ANCOVA was not reached with regard to FCAT reading scores ($F = 2.412, p < .144$). However, FCAT reading scores did improve an average of 16.2 percentage points for treatment students while comparison group students improved an average of 12.9 points. Trends among students who showed improvement indicated that 75% of the treatment group students improved their reading FCAT scores by an average of 26 scale score points, while 73% of comparison group students improved an average of 13 points. Means, standard deviations, and gain scores also were calculated and are reported in Table 1. Complete analyses are available from the first author upon request.

In addition to achievement test scores, changes in student behavior were of interest. Teachers rated student behavior related to school success in the areas of academic, social, and self-management skills on the SSBS (Merrell, 1993), in September and again in April. Seventy-two percent of the students improved; the average amount of improvement was 19 percentile points. These findings were similar to those reported in previous studies (see Table 2). Counselors also reported that teachers were very positive about the focus of the groups and the behavior changes they were seeing. No comparison data were available on the behavior scale.

DISCUSSION

This study aimed to replicate the findings of previous studies (Brigman & Campbell, 2003; Campbell & Brigman, 2005) examining the impact of a school counselor-led intervention on student achievement and behavior. Findings were consistent with previously reported outcomes (Tables 2 and 3). Collectively, the results from all of the studies suggested that interventions targeting specific skills associated with school success, led by school counselors using research-based techniques to teach these critical skills, can improve the academic achievement and social performance of students.

We acknowledge that many interventions and strategies are in place in today's schools that target achievement outcomes, particularly with underperforming students. This may have been reflected by the improvement in test scores for many students.
Table 1. Treatment and Comparison Means and Standard Deviations for the Florida Comprehensive Assessment Test–Norm Referenced Test, 2002-2003

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>2002 Mean Scale Scores</th>
<th>Standard Deviation</th>
<th>2003 Mean Scale Scores</th>
<th>Standard Deviation</th>
<th>Gain/Loss</th>
</tr>
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<tbody>
<tr>
<td>Treatment group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>math</td>
<td>207</td>
<td>628.11</td>
<td>34.268</td>
<td>648.79</td>
<td>34.607</td>
<td>+20.68</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>math</td>
<td>211</td>
<td>639.16</td>
<td>25.943</td>
<td>650.50</td>
<td>7.981</td>
<td>+11.34</td>
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</tr>
<tr>
<td>reading</td>
<td>207</td>
<td>633.65</td>
<td>34.065</td>
<td>649.82</td>
<td>35.417</td>
<td>+16.17</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>reading</td>
<td>211</td>
<td>633.85</td>
<td>13.763</td>
<td>646.77</td>
<td>24.775</td>
<td>+12.92</td>
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</table>

Table 2. Student Behavior: Results of Current Study with Previous Findings

<table>
<thead>
<tr>
<th>Study</th>
<th>Number of Students Showing Improvement</th>
<th>Percentage of Students Showing Improvement</th>
<th>Average Percentile Point Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study A</td>
<td>73/111</td>
<td>69%</td>
<td>22</td>
</tr>
<tr>
<td>Study B</td>
<td>106/153</td>
<td>69%</td>
<td>18</td>
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<tr>
<td>Current study</td>
<td>149/207</td>
<td>72%</td>
<td>19</td>
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</table>

Note. School Social Behavior Scales were used for rating behavior. Study A refers to Brigman & Campbell (2003); Study B refers to Campbell & Brigman (2005).

Table 3. Math and Reading Achievement: Results of Current Study with Previous Findings

<table>
<thead>
<tr>
<th>Study</th>
<th>Number of treatment group students</th>
<th>Number of comparison group students</th>
<th>Percentage of treatment group students showing improvement</th>
<th>Average scale score improvement</th>
<th>* Study results significant vs. comparison group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math, Study A</td>
<td>97</td>
<td>125</td>
<td>82%</td>
<td>30</td>
<td>*</td>
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<tr>
<td>Math, Study B</td>
<td>154</td>
<td>154</td>
<td>87%</td>
<td>31</td>
<td>*</td>
</tr>
<tr>
<td>Math, current study</td>
<td>207</td>
<td>211</td>
<td>85%</td>
<td>27</td>
<td>*</td>
</tr>
<tr>
<td>Reading, Study A</td>
<td>97</td>
<td>125</td>
<td>64%</td>
<td>26</td>
<td>*</td>
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<tr>
<td>Reading, Study B</td>
<td>154</td>
<td>154</td>
<td>78%</td>
<td>23</td>
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<td>Reading, current study</td>
<td>207</td>
<td>211</td>
<td>75%</td>
<td>26</td>
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</table>

Note. Data reported based on the Florida Comprehensive Assessment Test–Norm Referenced Test scale scores. Study A refers to Brigman & Campbell (2003); Study B refers to Campbell & Brigman (2005).

*a Significance is based on ANCOVA computed using α = .05.

who were in the comparison groups. Other school-based interventions such as tutoring, extra practice, and a specialized curriculum can affect outcome data. However, the use of randomly assigned treatment and comparison groups as part of a strong research design allows the differences between groups to be attributed to the SSS intervention. In the field, the best outcomes for students most likely can be achieved with multiple interventions including the SSS intervention.
Because determining if the treatment is being delivered as designed is of great importance in this type of outcome study, treatment fidelity becomes a key issue. In this study, several methods were used to ensure treatment fidelity for the counselor-led intervention. Methods included having a group manual, having an extensive training process for counselors with multiple models, using a peer coaching model, and requiring group attendance sheets for students.

In general, participating counselors reported a general trend of enthusiasm for conducting more groups and measuring their impact. After examining the results of this study, many of the counselors reported increased commitment to working in a more structured manner when leading groups. These counselors also reported an increase in requests for direct counseling services and they were perceived by teachers and administrators as directly contributing to the educational outcomes that were central to their school's mission.

It is clear that continued evaluation of the SSS intervention with demographically varied populations across grade levels is needed. Questions remain as to the optimal grade level at which to introduce the intervention in order to effect the strongest long-term impact. Additional study is warranted to evaluate whether gains can be further improved by systematically including the SSS skill sets at multiple grade levels. Multiyear follow-up is indicated to examine the efficacy of the intervention in helping students develop skills they continue to use over time. Follow-up also would be indicated to examine whether the social behaviors of courage and confidence, needed to become better students, are retained. In addition, further outcome research is needed on other types of school counselor interventions providing educators evidence that school counselors can be part of the school-based team, working to improve the academic and social performance of students.

As school counselors increase their use of research-based interventions, they can use student outcomes to promote comprehensive guidance and counseling programs to further the school counseling profession. The SSS results are complementary to results being reported by other researchers. For example, Sink and Stroh (2003) found that students attending schools with well-developed comprehensive guidance and counseling programs for several years demonstrated significant achievement gains over children attending schools that did not have comprehensive guidance programs. School districts may be more willing to embrace comprehensive programs when the school counselor–student outcome link is more clearly established.

Limitations
Limitations are expected when one is attempting to conduct research in schools with human subjects. Students in the participating schools were diverse but not truly representative of the national population. For example, there were 9 percent Hispanic versus 12 percent nationally, 85 percent Caucasian versus 71 percent nationally, 4 percent African American versus 12 percent nationally, and 45 percent were on free or reduced lunch versus a poverty rate of 14 percent nationally. However, previous SSS studies did include higher numbers of African American and Hispanic students. These studies also reported similarly improved student outcomes.

The current study was limited to students in grades 5 and 6. One way to increase the generalizability of results is to study the effect of the intervention on students in other grade levels. Previous studies reported significant gains for students in grades 5, 6, 8, and 9. In addition, a study using a version of SSS designed for use with younger students (i.e., “Ready to Learn”) found evidence of improved readiness for academic tasks in pre-kindergarten, kindergarten, and first grade (Brigman & Webb, 2003).

The results of the current study reflect one year of student performance. Continued student improvement would strengthen support for the SSS intervention. The authors have begun this process by tracking the progress of students from a previous study. One year following the intervention, the students showed continued strong performance and improvement. These students did not receive additional SSS intervention, yet 72% continued to show improvement on the math FCAT with an average gain of 21 scale score points. Sixty-five percent continued to show improvement on the reading FCAT with an average gain of 21 scale score points. The follow-up is limited at this point and further tracking is indicated that would examine the long-term effect of intervention.

Conclusions
The SSS studies come at a time when educators are being asked to critically evaluate interventions and programs being used in their schools. District, state, and federal mandates have called for educational practices supported by strong evidence of effectiveness in improving student outcomes. Guidelines for reviewing educational practices, such as those developed by the Coalition for Evidence-Based Policy for the U.S. Department of Education (2003), help educators make important decisions when choosing the programs and practices that will make a difference. Schools are under increasing pressure to improve student achievement, accentuating the need for evidenced-based programs. Federal and
state education dollars are being earmarked specifically for programs and practices meeting these types of guidelines. The SSS studies, reflecting student outcomes as a result of school counselor intervention, provide strong evidence of effectiveness.

While the SSS intervention is focused on student outcomes, it also helps provide a link between school counselors and improved learning outcomes for students. For professional school counselors to be seen as key contributors given today’s educational climate, it is essential for counselors to use evidence-based practices that show results in academic achievement and social performance, areas that make a difference to decision makers. The SSS research contributes to the school counseling profession’s need for accountability and the educational community’s call for a focus on evidence-based interventions that produce improved academic outcomes for all students.

References