



**Impact of Leaps Pro-Social Intervention
on Elementary Student Behavior and Academic Achievement
October, 2013**

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Abstract

The purpose of this study was to explore the impact of a behavior intervention focused on teaching appropriate social-emotional skills on student achievement, discipline, and attendance patterns in an elementary setting. Participants included 4th and 5th graders in a diverse, low socio-economic, average-performing elementary school. The experimental study included a small experimental group of students who participated in a bi-weekly (Tier 2) intervention utilizing Leaps lessons for 6 months to learn appropriate social-emotional behaviors based on individual and group needs identified through a pre-test. Student academic gain scores, behavioral data, and attendance data was examined and compared with that of a similar control group from the same school. Analyzed data supported a strong correlation between the experimental group and test score gains, as well as gains in attendance, for the same year of the study. Implications for this study reinforce and substantiate the impact of teaching appropriate behaviors on student achievement.

Introduction

Purpose of the Study

The purpose of this study was to explore the impact of a behavior intervention focused on teaching appropriate social-emotional skills on student achievement, discipline, and attendance patterns in an elementary setting. A secondary purpose of this study was to explore the possible longevity impact of social-emotional skills instruction on students' academic achievement, discipline, and attendance for two years following the year of intervention.

Research Questions

Several research questions were answered as a result of this study:

1. To what degree can one year of an organized behavior intervention, implemented with fidelity during the students' elementary years, impact student academic, discipline, and attendance performance?
2. To what extent can one year of an organized behavior intervention, implemented with fidelity during the students' elementary years, impact student academic, discipline, and attendance performance over time following the intervention year?
3. How effective is teacher referral to behavior intervention success?
4. What intervention components contribute to successful social-emotional development and positively impact academic results for elementary students when implemented with fidelity over a year's time?

Rationale for the Study

Importance of Positive School Culture

A plethora of literature supports the need for a positive school culture to breed student academic success. In fact, a positive school climate is predictive of overall school success (Cohen, McCabe, Michelli, & Pickeral, 2009). Positive school climates support and encourage school connectedness (Blum, 2005). The impact of a positive school culture cannot be underestimated. In fact, the top three factors related to the reasons students drop out of school are associated with the building and maintaining of a positive school culture: academic failure, student connectedness to school, and student engagement (Princiotta & Reyna, 2009). Furthermore, the development of a positive school culture is explicitly aligned with specific drivers that promote school improvement in K-12 students considered to be "at-risk" for school success: promoting intrinsic motivation, engaging students and educators, and inspiring collaborative teamwork (Fullan, 2011). Developing and maintaining a positive school culture requires attention to the explicit teaching of pro-social behavior in addition to many other facets of the school environment.

Teaching Pro-Social Behavior to Nurture a Positive School Culture

Just as most students enter school with the inability to read and need to be taught that skill, many students enter school without the knowledge and ability to use appropriate pro-social behaviors. Just like reading, the solution is to teach students these skills as part of the curriculum (Positive Behavior Support Website, 2008). Unfortunately, teachers are typically ill-prepared to teach pro-social behavior that is necessary for helping students to attain academic success. They are often in need of sound and effective social-emotional curriculum to support them in teaching pro-social behaviors. Such curriculum needs to be flexible, portable, easy to use, somewhat diagnostic in nature, effective for students at multiple maturity levels, contain reporting features, and sustainable in nature (Burcham, 2010). The Leaps Social-Emotional Curriculum, the curriculum chosen for pro-social skill content for this intervention, encompasses all of these characteristics.

Characteristics of Successful Social-Emotional Interventions

With increasingly powerful data systems in place in most schools and districts, a stronger focus on people, both students and teachers, is seen as a top priority for data use in K-12 schools (Ash, 2012). In meeting student social – emotional and behavioral needs, a variety of interventions have been found effective. Teaching and re-teaching behavior expectations through high quality curriculum provides a flexible yet solid approach and content for busy teachers and offers support to School Wide Positive Behavior Support. Mentoring programs utilizing peer-to-peer and adult-student mentoring have had a positive impact on student connectedness with school and drop-out rates (Sims, 2010). Check and Connect and Check-In, Check-Out programs often enhance behavior interventions with scheduled accountability and frequent opportunities to build positive relationships with students as part of the checking in process (Horner et. al., 2013). High quality and successful social-emotional interventions implementing one or more of these components, as well as providing explicit pro-social content instruction, meet student needs and yield positive academic and behavior results.

Methodology and Procedures

Setting

This study took place in a public elementary school in south Florida. The school is comprised of a diverse group of 815 students, the majority of them living in low-income housing or apartment complexes located near the school. Behavior interventions/mentoring were implemented during the school day in mentors' (teachers') classrooms during their designated planning period throughout the day.

Participants

The study took place in an elementary school (PK-5) of approximately 815 students, 54% of them male. The school's student population comprised 60% Hispanic students, 28% African-American students, 9% Caucasian students, and 3% Multi-cultural students. 96% of the school's student population was categorized as economically needy. A little more than 38% of the school's students were labeled English Language Learners and 14% of the students received special education services.

Participants for the behavior/mentoring intervention were chosen in grades 4 and 5 by classroom teachers based on their observations of the students within the first month of school. Teacher nominated students who appeared to need extra pro-social skill development beyond what the school's positive behavior support system and classroom instructional curriculum provided for all students. Students were not chosen based on any demographic indicator.

Intervention Group – This group of students from grades 4 and 5 were nominated by individual classroom teachers based on their observation of the students' pro-social behaviors and skills during the first month of school. Teachers supported their choices in participating students by completing a rigorous pre-assessment based on their observations of the students from the first month of school for every individual student nominated. While this group was originally comprised of nominated students from 3rd, 4th, and 5th grade, the focus of this study was participating 4th and 5th graders for the purpose of test comparison data. The data expressed in the study expresses only the 4th and 5th graders participating in the intervention with the exception of the group data from the Leaps Pre and Post Assessment.

Control Group – This group was chosen randomly from this school by grade level as a comparison with those students participating in the intervention. The number of students in each grades 4 and 5 for the control group closely mirrored the number and demographics of students in each grade level in the experimental group. Students were not chosen based on any demographic indicator. The basic academic and attendance data of these students were correlated with data from the experimental group.

Leaps Social-Emotional Curriculum

Leaps is a research-based, practical program that improves behavior, grades, and attendance in K-12 education and juvenile justice environments. With a comprehensive library of lessons and powerful, interactive assessment tools, Leaps provides educators and interventionists with customized, actionable plans to improve social and emotional skills for any youth (Burcham, 2007).

Methodology

Both quantitative and qualitative measures were examined in this quasi-experimental study. Student academic and attendance data was examined, as well as individual student pre and post assessments of the application of social-emotional skills within the classroom based on teacher observation. In addition, anecdotal information was gathered by teachers throughout the intervention. Fidelity of the intervention was confirmed by a Leaps Fidelity Report measuring curriculum use and confirmed by school and district administrators. Student selection for the experimental group followed the standard protocol outlined earlier, while the control groups were both randomized but mirrored the numbers and demographics of students per grade level in the experimental group. The school setting in which this intervention took place had very little discipline data in the form of office discipline referrals at the time of this study since Positive Behavior Support was well intact within the school culture, therefore eliminating the necessity of data collection in that area.

Procedures

The procedures of this study began with the research questions and the introduction of the Leaps program to the school featured in the study. The school's Positive Behavior Support Team planned the student intervention based on observed needs of many of their students. Once the intervention had taken place, a third party researcher obtained permission from the school district and Leaps to examine the data and its impact on students receiving with intervention in regard to student test scores and attendance patterns during the year of the intervention and two years following the intervention. As data was gathered, research focused on the impact of behavior intervention on student test scores and attendance was also gathered. Research focused on behavior changes as a result of behavior intervention was also gathered at a school wide level. Individual changes in student behavior patterns were more difficult to measure since the targeted elementary school minimized the use of office discipline referrals because of their proactive efforts with students and a strong Positive Behavior Support implementation. Their school wide discipline data concerning the use of in school suspension and out of school suspension was noted through the years of focus in the study. A close examination of student data using a comparison group of similar students from the same grade levels, demographic makeup, and academic performance from the same school was used to validate the intervention impact in this study.

Intervention Design

The intervention design was one of careful thought and planning based on the Problem-Solving/Response to Intervention model. It combined the use of the Leaps pro-social and emotional skill development lessons twice weekly, a daily "check and connect" system to provide an ongoing feedback element, and volunteer teachers acting as mentors during the instructional day. A pre and post assessment was provided to assess individual student social

skill acquisition. Daily intervention progress monitoring took place in the form of the behavior rubric used by each student. Though this data was collected and graphed throughout the intervention, it was not available for use with this study. A Leaps Assessment was administered at the conclusion of the intervention, which was approximately 8 months during the school year.

Mentors for the students were teachers within the school who willingly volunteered to give up two planning periods each week to teach targeted Leaps lessons to a small group of students. The mentors also took the last five minutes of every school day to check and connect with their students about their success in meeting the school wide expectations in school that day, providing them with daily feedback and attention.

The intervention was designed to take place for approximately 8 months of the school year. It culminated in a Leaps Post Assessment to measure individual and group progress in the development of pro-social behavior skills.

Intervention Implementation Details

The behavior intervention was created by school based administrators as a response to a large group of students observed to be in need of a school mentor, an increased understanding of pro-social behavior skills, and a positive connection to the school environment beyond the classroom teacher. The intervention procedures took place in the following steps.

1. Once students were identified, teachers completed a Leaps Pre-Assessment for each student. The Leaps Pre-Assessment was comprised of 100 multiple choice questions requiring teachers to rate the existence of many behaviors they had observed in regard to the specific students. This was completed on a paper copy of the Leaps Assessment, one per student completed by each student's teacher.
2. The paper pre-assessment responses were entered into the Leaps Assessment Program online so that data could be easily tracked and intervention groups formed.
3. Intervention groups were formed by the school counselor and the school psychologist based on students' greatest areas of need.
4. The school staff was asked for volunteers to meet with student intervention groups during teacher planning time twice a week. During the mentoring time, 30 minutes in length, teachers were asked to use Leaps lessons based on their group's needs as noted on the Leaps Assessment to teach students specific behavior skills. Teachers downloaded the Leaps lessons from their company website as needed. Leaps furnished the researcher with data establishing the fidelity of these downloads throughout the intervention.
5. Students in the intervention group were assigned smaller groups based on their specific needs based on the Leaps Assessment. Each group was then assigned a mentor.
6. Twice a week, the intervention group students reported to their small mentoring group during the established times. During the group time, teachers taught Leaps lessons based on indicated student needs.

7. Each student in the intervention group was given a general S.T.A.R. rubric to help them remember to follow school wide expectations throughout the day. Teachers marked the rubrics with them every hour throughout the day.
8. At the end of each day, the intervention students reported to their mentors for a quick “check and connect” based on the student’s behavior performance in following the school wide behavior expectations. This brief conversation centered around a discussion of the students’ behavior rubric outcomes. The teachers responded with re-direction and encouraging words to the students as needed.

Data Collection

The Leaps curriculum used in the study to teach appropriate social-emotional skills provided pre and post assessment measures for students in social-emotional skill application as completed by individual students’ classroom teachers based on their observations of the students in a classroom setting. De-identified student academic state testing and attendance data for the intervention and control groups was retrieved by the district’s Response to Intervention Coordinator with permission of the school district’s Research Committee. This data was provided to the third party researcher for closer examination and the documentation of this study. School wide data pertaining to academic testing performance in the two grade levels examined was also noted as an indicator of the overall contribution gains tied to the intervention.

Fidelity

Fidelity of this intervention was measured by several means. First of all, the intervention was documented in the district’s intervention data system. Individual student rubric scores were documented at the school level, and though not a part of this study, there was evidence through student scheduling and anecdotal from teachers that the rubrics were completed and tracked by the teacher mentors daily during the intervention year. These daily rubrics collected during the check and connect time at the close of each school day served as the daily progress monitoring for students taking part in the intervention. Secondly, the intervention fidelity was also corroborated based on the number of Leaps sign-ons and lesson downloads during the intervention year. Finally, the school maintained a schedule of mentoring events taking place throughout the school year at a consistent rate of two 30 minutes sessions per week.

Results

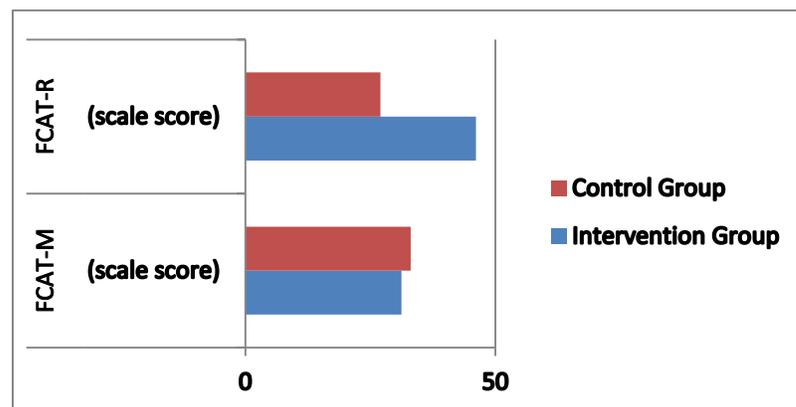
Academic Results

Academic results of students in the intervention and control groups were calculated based on gains made on the Florida Comprehensive Assessment Test (FCAT) since 90% of both experimental groups scored at Levels 1 and 2 in the Reading and Math assessments. Student gains scores, showing more targeted and specific growth, were collected and compared from 2009-2010 (year prior to intervention) to 2010-2011(year of the intervention). No longitudinal

comparisons were made for years following 2010-2011, since FCAT scoring standards changed for the 2011-2012 school year.

The overall average FCAT Math scores for students in the intervention group increased from 259 (2009-2010) to 280 (2010-2011), a significant result. Those students in the control group earned an overall average of 275 (2009-2010) to 277 (2010-2011) on the same tests, revealing very little discernible change. The overall average FCAT Reading scores for students in the intervention group increased from 256 (2009-2010) to 266 (2010-2011), revealing a significant change. The overall average reading scores for students in the control group actually decreased from 256 (2009-2010) to 252 (2010-2011), yielding a negative result. The data clearly illustrated a significant increase in both Reading and Math state exam results for students in the experimental group who had experienced the mentoring intervention.

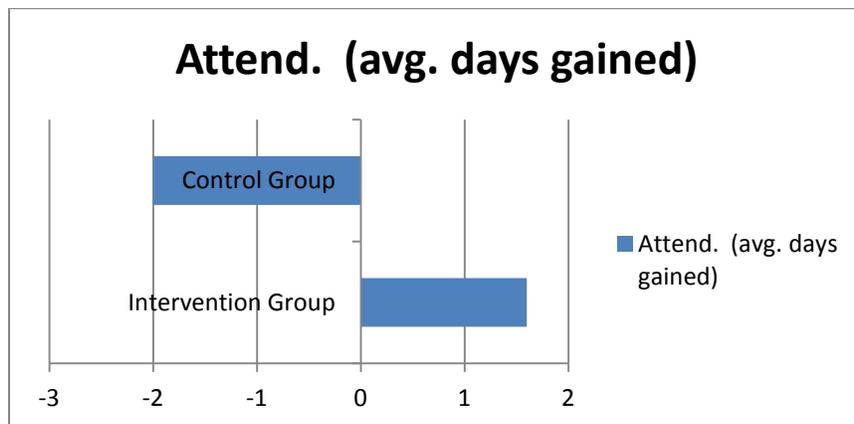
To better define this significant increase, the range and numbers of students with improved test scores were examined. Of the students in the intervention group, 77% improved with an average of 31.1 points gained on the FCAT Math test, while 54% of them improved with an average gain of 46 points on the FCAT Reading test. Of the students in the control group, 58% improved with registered gains at an average of 33 points on the FCAT Math test, while 33% of them improved with an average gain of 27.5 points on the FCAT Reading test. In summary, nearly 20 % more of the students who experienced the mentoring intervention increased their Math FCAT score by the same percentage points as those students who did not receive the intervention. Students in the intervention group dramatically increased both the percentage of those who improved and the number of points improved on the FCAT Reading test compared with those in the control group. This data clearly shows a significant correlation between participation in a social-emotional intervention and academic outcomes on state assessments. Moreover, it strongly supports the reliability of Leaps as a valid social-emotional skills curriculum.



Attendance Results

Individual student attendance rates were noted in the numbers of days missed per school year in the year prior to the intervention (2009-2010) and the year of the intervention (2010-

2011). 54% of the students in the intervention group improved their attendance between the two school years. Their total average of days absent moved from 7 days/year to 5 days/year. 50% of the students in the control group improved their attendance between the same two years, but actually increased their average of days absent from 7 days/year to 9 days/year. While only about half of the students in both groups increased their attendance between the two years in question, those who did increase their attendance in the intervention group gained an average of 2 days, while those in the control group who improved actually lost an average of 2 days during those 2 years. Though the overall impact of the intervention on attendance yielded marginal results, students who did increase attendance (intervention group) did so with a significant increase of 2 days, suggesting a possible pattern of established new habits, especially when compared to those in the control group.



Social-Emotional Results

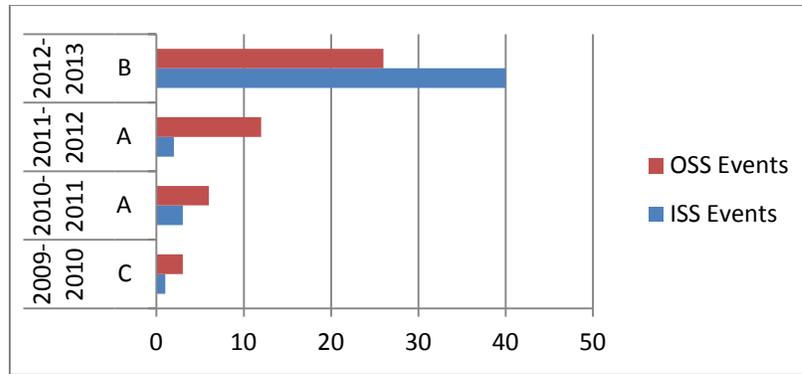
While this group was originally comprised of nominated students from 3rd, 4th, and 5th grade, the focus of this study was participating 4th and 5th graders for the purpose of test comparison data. The data expressed in the study expresses only the 4th and 5th graders participating in the intervention with the exception of the group data from the Leaps Pre and Post Assessment. Only the students who were a part of the intervention group were given a Leaps Social-Emotional Pre and Post Assessment. All students in the intervention group improved in each area measured in the social-emotional assessment, registering a group improvement percentage of 24.42 in one school year. Students showed growth in 100% of each of the 10 areas measured with the assessment. These include: friends, school rules, stress and anxiety, respecting self and others, anger and emotional management, communication and presentation, decisions and consequences, hygiene, managing time and attention, and social life. As a group, they made the most significant growth in the following areas: stress and anxiety (33.5%), managing time and attention (33%), respecting self and others (31%), decisions and consequences (29%), and communication and presentation (26%). It is interesting to note this pattern of growth compared to the focus of the intervention, which was focused on the group's

greatest areas of need illuminated from the pre assessment: stress and anxiety (1), managing time and attention (2), decisions and consequences (3), anger and emotional management (4), and social life (5). This data illustrates the validity and reliability of Leaps as a viable social-emotional curriculum and measurement tool for intervention.

School Wide Academic, Attendance, and Behavior Results

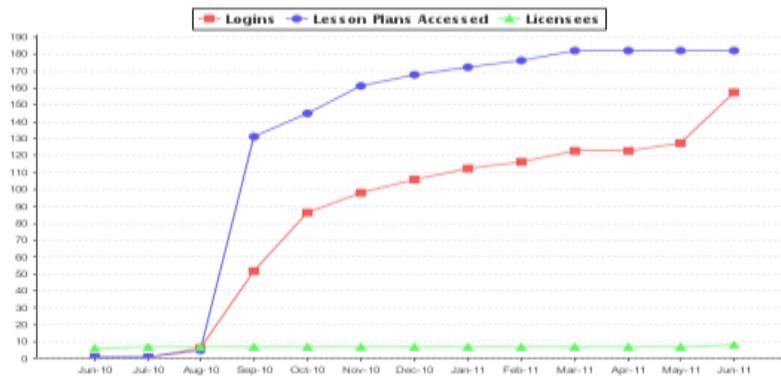
The featured school reported a school grade, as calculated by the state of Florida, of an A (546 pts.) during the intervention year (2010-2011), up from a C (476 pts.) the year prior. During the year following the intervention (2011-2012), the school reported a school grade of A (561 pts.). Two years following the intervention, the school reported a school grade of B (432). In the state of Florida, Annual Yearly Progress (AYP) is measured based on specific gains. During the year of intervention (2010-2011), the school posted moderate gains in level 1 & 2 reading in grades 4 (5%) and 5 (12%), the area in which all of the intervention participants fell in reading that year. The following year (2011-2012), the school posted moderate gains in level 1 & 2 reading in grades 4 (0%) and 5 (0%). Clearly, this mentoring intervention featuring Leaps as a social-emotional curriculum made the significant difference in the overall school grade by supporting students in the area of social-emotional learning and connectedness with the school.

While the school's overall attendance rate has remained steady at approximately 95% from 2010 – 2013, their overall in-school suspension (ISS – typically less severe in-class behaviors) and out-of school suspension (OSS – typically more severe zero-tolerance behaviors) rates have increased significantly during this same time period. During the year of the intervention (2010-2011), the school recorded 3 ISS incidents involving 1 student and 6 OSS incidents involving 1 student. In 2011-2012, the school reported 2 incidents of ISS involving 2 students and 12 incidents of OSS involving 13 students. This increased dramatically when in 2012-2013, the school reported 40 incidents of ISS involving 22 students and 26 incidents of OSS involving 22 students. During the year of intervention, very few office discipline referrals were recorded. Numbers of office discipline referrals for years following the intervention year were unavailable and therefore, not used as part of this study. The overall impact of the intervention on behavior had significant impact in reducing ISS events within the school during the intervention year, suggesting that Leaps does positively impact student behavior in the classroom, typically behaviors that would result in ISS events.



Fidelity of Implementation

The intervention was implemented with fidelity as shown by the graphed logins and lesson plans accessed. Licenses remained low since the team overseeing the intervention were the individuals who downloaded the lessons for the teachers to use in their mentoring groups.



Interpretations

Academic Interpretations

It is clear that those students who were a part of this intervention experienced overwhelming gains as shown in the state testing results. This took place in spite of the fact that students were taken out 60 minute of their regular class time each week to learn social-emotional behavior skills they needed to succeed in school. While the intervention group did not quite match the average points gained on the FCAT Math test, a higher percentage of the students made gains compared with those in the control group. On the FCAT Reading test, the intervention group definitely outscored the control group both in a higher average score and a higher percentage of improvement. This data illustrates a significant positive connection

between taking the time to teach appropriate behavior skills in targeted small groups and overall student academic performance.

While the intervention and control groups were both closely matched in demographic and academic test performance, the intervention group was comprised of 100% students with disabilities or having a 504 plan of some kind. At least 50% of the students were labeled Emotionally Handicapped or Other Health Impaired with Attention Deficit Hyperactive Disorder, a fact that makes these gains stand out even more. By comparison, the control group was comprised of 75% students with disabilities with only 20% labeled Emotionally Handicapped or Other Health Impaired. This data clearly supports the fact that teaching appropriate social-emotional skills benefits students with disabilities, as well as students within general education.

Attendance Interpretations

The attendance of those who were a part of the intervention group increased while those in the control group actually decreased their overall attendance. Though part of the attendance increase was most likely due to an increase in self-confidence and self-efficacy through the social-emotional behavior skills instruction, the increased connectedness to school through the individual check and connect daily and the mentoring groups themselves, most likely contributed to the increased attendance of those students in the intervention group.

Social-Emotional Interpretations

While primary target areas improved most dramatically according to the data, unexpected growth appeared as a positive by-product of the intervention: high growth in respecting self and others and communication and presentation, both of which speak to promoting self-confidence, resiliency, and self-efficacy. These high areas of growth support the unusual gains evident in the students' FCAT scores and their increased attendance during the intervention year. Additional teacher and administrator anecdotal comments further support this evidence. Many of their comments noted that the intervention group of students appeared to be happier and more positively connected to school, regardless of their home situations.

School Wide Academic, Attendance, and Behavior Interpretations

While this intervention group was fairly small, according to the school wide academic and behavioral data, they contributed positively to the overall positive school environment and toward the schools' advancement academically from a school grade of "C" to "A" during the year of the intervention (2010-2011). Teacher and administrative anecdotal comments also support this conclusion.

During the 2011-2012 school year, the intervention continued, though it was much more loosely organized and the fidelity level was not as high. The school did not see the same

academic gains the following year in regard to the levels 1 and 2 students, where the students participating in the intervention were primarily scoring. Though the school maintained their “A” status with the state, their school wide behavior data in the form of ISS and OSS numbers began to increase negatively. During the 2012-2013 school year, the intervention was no longer implemented, the school’s academic standing slipped to a “B”, and the numbers of students involved with ISS and OSS began to soar. All of this information suggests the importance and the many benefits of engaging students who are observed to be disconnected to school and needing increased social-emotional behavior skills beyond school wide Positive Behavior Support.

Research Limitations

Several research limitations prohibited additional longitudinal conclusions. One of them was the change in FCAT Test scoring in the school year following the intervention year which resulted in the unavailability of valid comparisons to surmise longitudinal impact of the intervention academically. Another limitation was the lack of specific behavior data, such as office discipline referrals or the behavior rubric data used in the intervention. Overall school behavior data in the form of in-school suspension and out-of-school suspension data supported the success of the intervention, especially when compared with the same data in years following the intervention, but more specific behavioral data would increase the strength of this study.

Conclusions from Data

Intervention Implementation Practices and Results

This study illuminates the impact of several best practices to ensure successful behavior intervention with elementary students. One best practice noted in this intervention was the use of a solid behavior curriculum based on clinical social-emotional areas of growth written in a format appropriate for students at this maturity level. The use of a standardized pre and post test to measure individual and intervention group growth in ten difference social-emotional areas of growth lends strong credibility to the study and outcomes. Another best practice implemented within the study was that of combining a school based mentor for daily check and connect opportunities as well as regular 30 minute interventions twice a week with the same mentor. This allowed students to build a strong positive connection to someone in the school beyond their classroom teacher. The fidelity and consistency of the intervention implementation over a long period of time is also a key best practice, since many schools rush to end a working intervention that students need for success. Finally, involving teachers in the nomination of the students for the intervention based on their observations not only created the necessary buy in for the staff, but it allowed for a very targeted approach, supported with data, to choosing students needing this extra support in behavior in order to experience success in their academics. Additional anecdotal data indicated that teachers felt they were successful in their choices and saw the direct benefits in their classroom settings. In summary, the use of a solid social-

emotional curriculum with fidelity in a targeted skill approach yields statistically significant improvement in academic testing, as well as in student behavior at school.

Students involved in the intervention did see a positive impact in academic achievement and attendance during the intervention year. They scored an average of 20 points more on the FCAT Math and Reading than those in the control group of equal ability. Students in the intervention group improved their overall attendance during the same school year compared to those in the control group.

In addition, all students experienced social-emotional growth as measured by the Leaps Pre and Post Assessment. Anecdotal records and the apparent academic gains for students in the intervention group support the fact that students also improved behavior. Longitudinal impact of the intervention in individual students could not be measured easily in the area of academics and behavior, but in the area of attendance, though somewhat tapered, it remained positive with fewer missed days than those in the control group. Individual student attendance in the year following the intervention to continue to increase at a slightly lower rate, though during the year after that, it was comparable to students who were in the control group, suggesting an approximate 2 year impact.

The impact on student behavior is more difficult to determine since office discipline referrals were not used to measure student behavior in the elementary school. However, one can surmise from the overall school behavior data that lack of proactive intervention may contribute to overall school behavior data. This suggests that once a student establishes a connectedness to school, they are likely to attend school more often, even up to a year following the intervention enabling them to feel connected.

Overall, the multifaceted impact of this intervention utilizing the Leaps curriculum was strong, enabling those students who needed extra support in managing their behaviors for greater academic success to do just that. Anecdotal evidence also supported the fact that the school staff as a whole recognized the impact of the performance of this group of students in their overall school grade change that year from a “C” to an “A”. Based on this evidence, it can be concluded that the ongoing use of an intervention such as this utilizing sound curriculum and a consistent approach would continue to impact the academic achievement, attendance, social-emotional growth, and behavior of students in subsequent years.

References

- Ash, K., 2012. *Stronger Focus on People Seen as Top Priority for Use in Education*. Education Week, 2012, 12-5-12.
- Blum, R. (2005). *A Case for School Connectedness*. The Adolescent Learner. April, 2005, Vol 62, 7, pg. 16-20.
- Burcham, J. (2007). Leaps Website. Located at <https://www.goleaps.com>.
- Burcham, J. (2010). Leaps: Simplifying Behavioral RtI. Downloaded from <https://www.goleaps.com/resources/whitepapers> on November 3, 2013.
- Cohen, J., McCabe, L, Michelli, N.M & Pickeral, T. (2009). *School Climate: Research, Policy, Teacher Education and Practice*. Teachers College Record, Vol 11, 1, pg. 180-213.
- Fullen, M., 2011. *Choosing the Wrong Drivers for Whole System Reform*. Downloaded on December 28, 2013, from: <http://www.michaelfullan.ca/media/13436787590.html>.
- Horner, R., Sagai, G., et. al. (2013). *Check-In Check-Out: A Targeted Intervention*. Downloaded on December 29, 2013, from: <http://www.ocde.us/PBIS/Documents/2013%20CICO%20PowerPoint.pdf>
- Positive Behavior Support Website (2008). *Developing an appropriate system for teaching behavior*. Module 12. Retrieved at: <http://www.pbis.org/common/cms/documents/Staff/staff%20training%20materials/Teaching%20Appropriate%20Behaviors%20Summer%202008.ppt>
- Princiotta, D. & Reyna, R. (2009). *Achieving graduation for all: A governor's guide to dropout prevention and recovery*. NGA Center for Best Practices (ED507071).
- Sims, C. (2010). *Service-learning mentoring for high school transition and students leadership (Electronic Edition)*. Techniques: Connecting Education and Careers.

April, 2010, 4, pgs. 24-79.

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