



Why Behavior Does Matter: A PBS Program from Implementation to Success

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Introduction

According to the U. S. Department of Education, approximately one third of students have psychosocial problems that act as a barrier to their benefiting fully from instruction, resulting in poor academic progress. Additionally, teachers are inefficiently forced to expend time and resources on these issues, which take away from classroom effectiveness and the academic instruction of all students. Aside from the dramatic impact of disruptive student behavior on the individual student, research has also consistently demonstrated the following systemic impact:

- Problem behaviors disrupt school climate
 - High performing schools report fewer behavioral incidents
- Problem behavior contributes to poor academic performance
 - Students with an early onset of behavioral problems 3X more likely to fail
- Disruptive behavior associated with teacher turnover
 - Problem behaviors often cited as #1 reason teachers leave the profession

In order to address behavioral issues school districts have largely embraced the implementation of a PBIS model, which has been demonstrated to reduce disruptive behavior and improve school climate. To extend the implementation of this model into special education settings, a number of large school districts have adopted Review360™, which serves as part expert behavior coach and part data management and analysis system. The purpose of this presentation is to:

1. Identify common behavioral issues address by special education teachers and strategies they use with their students.
2. Evaluate the impact of districts' behavioral services on student behavioral progress and
3. Examine the relation between behavioral progress and academic achievement.

Participants


The study included 6 large urban school districts that were implementing Review360 district wide in their special education behavioral program during the 2008-2009 school year. The average school district consisted of 112,132 students with 156 schools and 6,917 teachers. The typical district had 11.2% of their students were served in special education. Further analysis in the study is applied to one school district in order to investigate the relation between behavior and academics. This district is a large urban school district in Texas.

Review360™

Review360™ is a web-based behavioral improvement system used by special education teachers to support the implementation of school districts behavioral services system. The software has been specifically designed to support the implementation of a PBIS model in special education. More specifically, Review360™ guides teachers through the process of identifying positive replacement behaviors, the selection of appropriate behavioral strategies, and facilitates the implementation of the districts behavioral services. Data from the system has been used to support the individual IEP process, evaluate the effectiveness of district's services, and monitor the implementation practices of their teachers.

Categorization of Behavioral Problems


Research has consistently demonstrated that disruptive student behavioral problems manifest into one of six categories: (1) Inattention/Disorganization, (2) Hyperactivity-impulsivity, (3) Social Deficiencies, (4) Defiance, (5) Aggression, and (6) Academic Problems. Review360 was designed to reflect those categories and includes specific behaviors that represent the broad areas.



Commonly Identified Behavioral Issues

High Frequency Categories of Behavior Problems	
Defiance.....	55%
Social Problems.....	47%
Hyperactivity/Impulsivity.....	46%
Inattention/Disorganization.....	33%
Academic Problems.....	30%
Aggression.....	28%
High Frequency Specific Behaviors	
Argues with Adults.....	25%
Doesn't Comply w/ Rules.....	23%
Has Emotional Outbursts.....	15%
Doesn't Complete Assignments.....	12%
Doesn't Complete Assignments Accurately.....	11%

N=3,371 Behavioral Plans

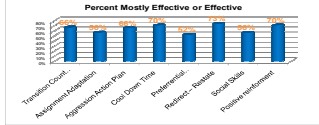


Selection of Behavioral Strategies

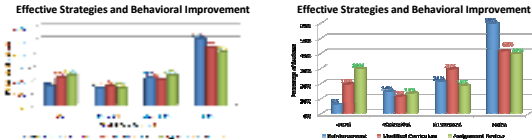
Review360™ includes a number of practical and research based behavioral strategies that can be classified into one of the following four intervention clusters: (1) Organizational Techniques, (2) Curriculum Adaptations, (3) Social Interactions, and (4) Contingency Management Interventions. Review360™ provides teachers with specific behavioral strategies based upon an analysis of the student's behavioral profile, but allows the individual teacher to include their own teacher designed interventions.

Identification of Effective Strategies

We designed a two-step approach to identifying strategies for inclusion in Review360™. Initially, we started with a bank of strategies that could be classified into one of the 4 previously described categories. Next, we reviewed teachers' acceptability data to identify strategies that teachers considered useful for a variety of behavioral issues. The teachers' acceptability data consisted of both frequency and subjective rating of the strategies effectiveness. The following graph illustrates data from Review360™ that identifies strategies that teachers consider effective:



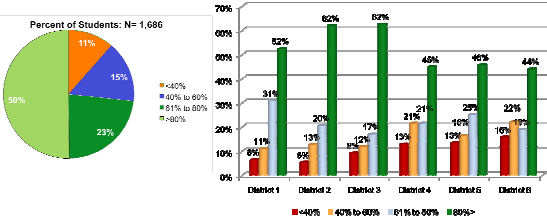
The second step to the identification process required the examining the degree to behavioral improvement was associated with the inclusion of specific strategies in the student's behavioral plans. The following graph identifies a sample of strategies that were associated with a higher degree of behavioral improvement.



Evaluating the Impact of Behavioral Services on Student Progress

To evaluate individual behavioral progress, Review360™ analyzes teacher entered data to determine the percent of time that students are meeting goals associated with specific objectives identified in the student's behavioral intervention plan. The data are summarized over time for the student and across the organization. At the individual level, the typical student is meeting his or her goal approximately 72% of the time (n=1,686). Across all districts, 50% of the students (n=843) are meeting their daily behavioral goals 80% of the time or better. Of that sample, 23% of the students (n=388) are meeting their daily behavioral goals between 61% and 80% of the time. Collectively 73% of the students (n=1,231) are meeting their daily behavioral goals more than 61% of the time. Of the students, 25% of the students (n=253) are meeting their goals between 41% and 60% of the time. Only 11% (n=186) of the students are meeting their behavioral goals less than 40% of the time. Data from the analysis indicates that 26% (n=439) of the students are demonstrating poor behavioral progress. The following graphs illustrate the behavioral impact of the implementation of districts' behavioral services.

Behavior Performance By Met Goal



Relation Between Behavioral Progress and Academic Achievement

To evaluate the relation between behavioral progress and academic achievement a subset of students were randomly selected from a large urban school district that used Review360 to support the implementation of their behavioral services district wide in special education. To be eligible for inclusion in the study, the participant must have met the following criteria:

- Student had a Primary Handicapping Condition (PHC) that is high functioning which allows for valid and reliable assessment using a large scale test of academic achievement (Texas Assessment of Knowledge and Skills; TAKS).
- Student had Review360™ results for 20 or more days in 2008-2009 school year.
- Student had valid TAKS scores from Spring 2008 (Baseline) & Spring 2009 (Post) in Reading/Language Arts or Mathematics.

Given the aforementioned criteria, 258 of the 728 students with Review360™ plans during the 2008-2009 school year were included in this study. They were instructed by 104 of the 145 teachers involved in our project. Participant students represent 88 of the 114 participating campuses. Participants were comprised by 30% elementary students, 53% middle school students, 17% high school students. All participating students have a degree of co-morbidity that is reflected in behavioral issues. Given the urban composition of the district, the majority of the students participants were from the following minority ethnic groups: 64% were African American, 30% were Hispanic and 6% were White/Other. The majority of the students included in the study, 87%, were identified as Economically Disadvantaged.

Standardized test levels were appropriately administered to different grades. TAKS Passing Rates were calculated to determine the impact that Review360 had on students meeting their state's academic standards. Scale Scores from the consecutive years of TAKS data were used to calculate the Texas Growth Index (TGI) for each student to measure academic growth in Reading/Language Arts and Mathematics and allow for the application of inferential statistical analyses.

Regression analysis was used to determine the impact of participation on improved academics. In further analysis, participants were divided into two subgroups: students with 85 or more Review360™ sessions (N=131) and students with less than 90 sessions (N=127). By grouping students into two groups, the study provided further descriptive behavior data results, inferential analysis, and effect size analysis on the impact of participation on student academic improvement.

Overall data from the analyses indicate that fidelity of implementation by teachers resulting in higher participation of their students positively impacted their students behavior and academic performance as reflected in improved behavioral outcomes, improved passing rates on the state test, and significant improvement in reading and math as indicated by inferential analysis of academic growth indicators.

Summary and Implications

Review360™ had an impact on the Behavioral performance of all students that participated in the program. The effect on behavior was significantly improved as the level of participation increased. Data also indicate that a systematic use of well established behavioral strategies based in the principles of PBS produce consistent positive results for students and are associated with greater behavioral improvement and subsequent academic gains. Academic gains were also linked to the degree of participation. The High Participation group exhibited greater academic improvement in both Reading/English Language Arts and Mathematics than their Low participation cohorts as measured by the TAKS. Students that participated in Review360™ are traditionally some of the hardest students to teach because of the disruptive behavior they engage in, yet the improvement in passing rates they exhibited were greater than the rate found for all Special Education students in the district.

