Looking at Positive Behavior Interventions and Supports Through the Lens of Innovations Diffusion

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Abstract

Innovations diffusion research sheds light on the complexities associated with the process of persuading people to adopt new ideas. This study applied the principles of innovations diffusion to Positive Behavior Interventions and Supports (PBIS), by examining the five characteristics known to influence whether an idea is adopted for widespread use. Twenty-two members of school PBIS teams were interviewed in a qualitative study. The results of this study indicate that the innovations diffusion characteristics of PBIS influence successful or unsuccessful adoption and implementation. Knowing these characteristics can provide guidance for successful adoption of PBIS.

Key words: PBIS, innovation characteristics, diffusion, school-wide positive behavior

Introduction

Educational innovations create new approaches or programs that offer unique and different ways to improve academic outcomes in a variety of curricular areas. Originators of new ideas often assume that because they believe their ideas are good ones that the ideas will simply sell themselves. A number of innovative education initiatives have been implemented over the years, bringing about significant improvements in education. However, the field has also produced a number of ideas that on the surface appeared to have merit but for a variety of reasons never lived up to their promise.

Middle schools illustrate an educational innovation that has proven to be empirically sound and has been widely adopted by many schools throughout the United States within a relatively short period of time. The first middle school was established in 1950; now there are over 12,300 in the United States (Manning, 2000, p. 192; U.S. Department of Education National Center for Education Statistics, 2005, Table 91). Middle schools are well suited to the developmental needs of students in fifth through eighth grades and have improved academic achievement of students as well as decreased their behavior problems (Beane & Lipka, 2006, p. 27). Evidence demonstrates that the emphasis placed on creating small learning communities, meaningful staff-student relationships, and strong transition supports within middle schools provides a solid education foundation for students.

In contrast, DARE (Drug Abuse Resistance Education) represents an educational innovation that was widely adopted yet was later proven ineffective. The program began in 1983 in Los Angeles and within ten years, more than 5 million students participated in the school-based drug abuse prevention curriculum (Rogers, 2003, p. 182). However, research findings regarding program effectiveness were disappointing and reported minimal reduction in student drug use (Lynam et al., 1999, p. 591-593.) Many schools eventually discontinued the once popular program because it did not produce the intended results (Rogers, 2003, p. 183).

Positive Behavior Interventions and Supports (PBIS) is a relatively new educational innovation that promotes socially appropriate behaviors among students. Schools create standardized behavior expectations for all classrooms and building locations, develop systematic procedures for teaching and reinforcing expectations for students and staff, and utilize school teams that employ data-based decision-making to guide implementation (Sugai & Horner, 2002, p. 29). Schools that have implemented PBIS with fidelity have reported reductions in discipline referrals, decreased amounts of administrative time devoted to addressing problem behavior, and improved positive school climate (Carr, et al. 2002, p. 9; Horner et al 2004, p. 3; Irvin et al 2006, p. 20; Irvin et al 2004, p. 132; Lewis & Sugai, 1999, p. 16; Luiselli, Putnam & Sunderland, 2002, p. 185; Scott, 2001, p. 91; Scott & Barrett, 2004, p. 23; Sugai et al 1999, p. 154; Sugai, Sprague, Horner & Walker, 2000, p. 95; Sugai et al, 2000, p. 140.) These findings suggest PBIS is an effective education innovation to reduce problem behaviors.

Given the potential benefits of PBIS, one would expect an overwhelming number of schools to adopt it. This has not proven to be the case. There are over 95,000 public K-12 schools in the United States (U.S. Department of Education National Center for Education Statistics, 2005, Table 91). Only 6672 schools spread throughout 44 states have been trained to implement PBIS (L. Riffel, personal communication, September 26, 2007). Illinois is one of the largest statewide implementers of PBIS, yet only 654 out of a total of 3890 public schools (16%) in the state have adopted PBIS (Eber, et al., 2007; Illinois State Board of Education Annual Report, 2006, p. 29).

Innovations diffusion is the science of studying why and how new ideas, inventions, programs, and approaches are adopted or rejected for widespread use. It has been studied in fields ranging from agriculture to engineering to the social sciences. Most new advances take years to catch on from the time they are first introduced to the time they are used extensively by consumers. Innovations diffusion research sheds light on the complexities associated with the process of persuading people to adopt new ideas.

The process of why and how schools decide to implement PBIS can best be understood through this lens. This study applied the principles of innovations diffusion to examine PBIS implementation efforts at four elementary schools. Certain school personnel were interviewed regarding their perceptions of PBIS implementation efforts and the findings are presented here. Understanding the innovation diffusion characteristics that impact implementation efforts provides valuable insights regarding why some schools have been successful with PBIS implementation while others have struggled or failed in their implementation efforts.

PBIS: An educational innovation

PBIS is a broad concept that refers to the school-wide application of behavior analysis and positive behavior interventions to promote socially appropriate behavior (Sugai & Horner, 1999; Schwartz, 1989; Durand & Carr, 1985, p. 173; Meyer & Evans, 1989, p. 143). A seminal article by Sugai and Horner (2002) suggested that schools interested in implementing PBIS are best served by adopting a systems perspective and developing desired behaviors across all settings (p. 9.) Schools accomplish this through administrative support coupled with various procedures such as team-based problem solving approaches, research-validated practices, and

data based decision-making processes (p. 6.) These strategies ensure a congruent school-wide approach to encouraging students to display socially appropriate behaviors while reducing the likelihood that challenging behaviors will occur.

PBIS uses a three tier model to illustrate the application of an integrated approach for providing behavior interventions in schools (Sugai & Horner, 2002, p. 38). Tier one interventions are universal, provided to all students to prevent behavioral problems. Examples of tier one academic interventions include research-based social emotional learning curriculums taught in general education classrooms. Tier one behavior interventions establish and provide methods to teach all students how to display expected behaviors, proactively pre-correct students, and acknowledge students for exhibiting the expected behaviors. PBIS expects that 80-90% of students will respond to tier one interventions.

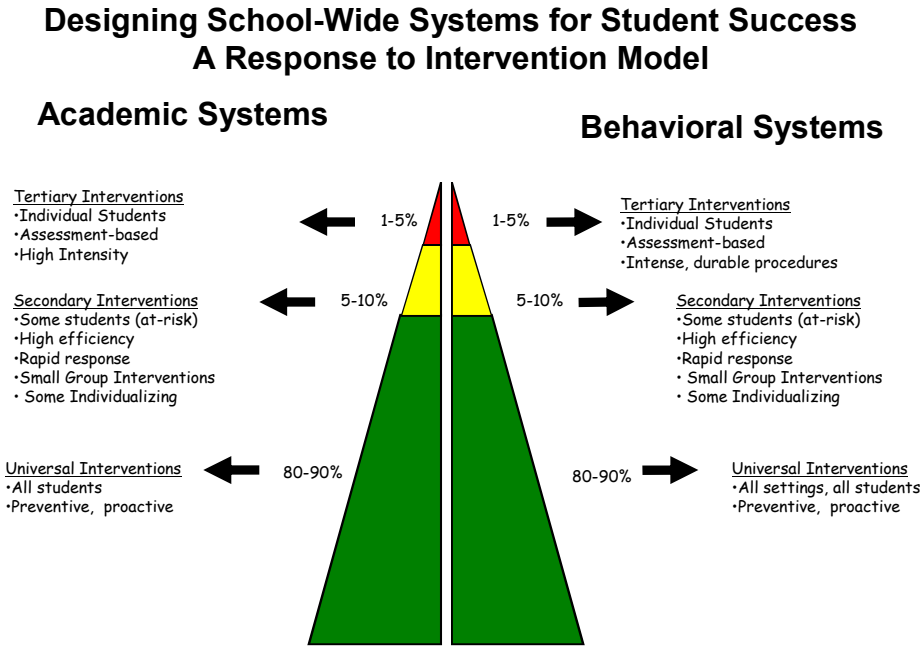

Figure 1. Sugai, G., Horner, R. H., & Gresham, F. M. (2002). Behaviorally effective school environments. In M. R. Shinn, H. M. Walker & G. Stoner (Eds.), *Interventions for academic and behavior problems II: Preventive and remedial approaches* (p. 20). Bethesda, MD: National Association of School Psychologists.

Tier two interventions are specially designed group interventions that target students at-risk of displaying challenging behavioral problems. These interventions are designed to be quickly accessed, highly efficient, flexible, and bring about rapid improvement (Hawken & Horner, 2003, p. 226.) PBIS estimates that 10-15% of students will need tier two level interventions to be successful in school. An example of a tier two behavioral interventions include specially designed small group counseling interventions provided by school social workers, school psychologists, school counselors, and other behavioral specialists (Crone, Horner, Hawken, 2004, p. 3.)

Tier three interventions are provided to students with highly intensive behavioral problems. Interventions at this level are individualized and personalized to meet the unique needs of students. Tier three behavior interventions include Wraparound. Wraparound is a planning process based on student strengths and needs across home, school and community. Individualized intervention plans are developed and tailored to meet the unique needs of students that exhibit chronic problem behaviors (Scott & Eber, 2003, p. 134). PBIS predicts that 1-5% of students will require tier three level interventions. All three tiers work together to provide a continuum of school-wide instructional and behavioral support.

Diffusion of Innovations

Diffusion of innovations is the process of how new initiatives are disseminated to customers or clients. It includes decisions made by individual consumers about whether to buy the latest cell phone to choices made by schools to adopt a new sexual harassment policy. Diffusion of innovations involves a number of factors including: the innovation itself; how information about the innovation is relayed to others; the point in time that the innovation emerges; and the characteristics of potential adopters (Rogers, 2003. p. 11). In reality, the true quality of the innovation is not as important as the user's perception of its worth.

There are five main characteristics of innovations that greatly influence the diffusion process. These include: relative advantage, compatibility, complexity, trial-ability, and observe-ability (Rogers, 2003, p. 15). Relative advantage refers to the extent to which an idea is viewed as better than what is currently being used. Innovations will be adopted more rapidly if they are perceived as advantageous over present custom. Compatibility is the degree to which others perceive the new idea to be congruent with the current norms, values, beliefs, or experiences of an individual or organization. Innovations that conflict with these notions are usually not adopted or adopted at a slower rate than those perceived to be more similar. Complexity describes the degree of sophistication associated with a new idea. Innovations that are complicated to understand and operate are adopted at a slower rate than those with simple, easy-to-use features. Trial-ability is a term coined by Rogers (2003) that refers to how easily a new idea can be piloted on a small scale to determine whether it would be beneficial to adopt on a larger basis (p. 16.) The ease of trial-ability positively influences the rate of adoption by decreasing uncertainty for decision-makers. Observe-ability refers to how obvious the advantages of an innovation are to potential adopters. Innovations are more likely to be adopted when the benefits are easily seen and recognized by others. New ideas that are better than what are currently used, fit well with personal values and beliefs, are simple to operate, can be tested on a trial basis, and have benefits that are clearly obvious will be adopted more quickly. Innovations that are not an improvement over what is currently being used, fit poorly with individual principles, are difficult to use, possess ambiguous benefits, and cannot be piloted on a small scale will be adopted more slowly or not at all.

Method

Study Site

Four elementary schools that are part of a school district located near a large metropolitan city in the Midwestern part of the United States were selected for this study. The school district requires each of its schools to implement PBIS. Implementation efforts had been underway for five years prior to the beginning of data collection for this study.

The schools are referred to as School A, B, C, and D. The four schools serve students in grades 3-5 and vary in terms of student population size, race/ethnic background, low-income status, and percentage of students that met or exceeded state learning standards. As can be seen in Figure 2, the total student population at each school ranges from 322 to 637. The diverse racial and ethnic backgrounds of the overall student population for the district are also reflected in the four schools.

Differences between the four schools exist with respect to the rate of students identified as low-income. For example, School A had the highest incidence of low-income students (74%) as compared to Schools C and D (49%). Further differences in the four schools exist in the rates of mobility within their student population. Schools C and D had a mobility rate of 20% as compared to School A, which had twice the mobility rate of 40%. Figure 2 also depicts the percentage of students at each school that met or exceeded state learning standards. School A had the lowest rate of students that met or exceeded state learning standards of the four schools that served as sites for this study.

	School A	*School B*	*School C*	*School D*	*District*
Total enrollment	326	400	322	637	6752
White	51	57	59	63	63
African-American	48	42	40	36	36
Hispanic	<1	.01	<1	<1	<1
Asian/Pacific Islander	<1	<1	<1	<1	<1
Native American	0	<1	<1	<1	<1
Low-income	74	60	49	49	42
Limited English Proficient	<1	<1	0	0	<1
Chronic Truancy	6	2	3	3	8
Mobility	40	29	20	20	28
Attendance	93	92	94	94	91
Students that met or exceeded state learning standards	46	50	61	55	56

Figure 2. Demographic characteristics of school study site by percent.

From: Illinois State Board of Education. Low-income rate: percent of students from families that receive public assistance; live in institutions for neglected or delinquent children; are in foster care; or eligible to receive free or reduced-price lunches. Limited English Proficient rate: students eligible for transitional bilingual programs. Mobility rate: number of times students enroll in or leave a school during the academic year. Chronic truancy: students who are absent from school without valid cause for 18 or more of the last 180 school days.

Participants

Twenty-two participants were interviewed. They held a variety of positions including: teachers (7), principals (4), social workers (4), regional and state PBIS consultants, (4) central office administrators (2), district PBIS coordinator (1). All of the teachers, principals and social workers interviewed were members of their schools' PBIS implementation teams.

Procedure

Qualitative inquiry design methodology with multiple case study design was used in this study. The research question was: What characteristics of PBIS affect its adoption? Data was collected over a two-month period and involved sixteen site visits by the investigator (4 per school). The primary source of data was participant interviews that were conducted in person at each of the four schools. A structured interview guide was used that included prompts and questions pertinent to school-wide PBIS implementation issues. Sample questions included: 1) How does PBIS work at your school? 2) Did you attend training on PBIS? In your opinion, did the trainings teach you what you needed to know to implement PBIS? 3) What things work well with respect to PBIS at your school? 4) What things do you think could be done differently? All interviews were audio taped and notes were made prior to, during, and after the interview to record reflections concerning non-verbal communication, facial gestures, and body language. Tapes were then transcribed following each interview.

Other sources of data included archival records. These records included items such as PBIS team records, charts and graphs depicting office discipline referral data, and monthly reports that required principals to describe involvement with PBIS implementation. These records were collected during site visits at each of the four schools as well as visits to the district office. Other records collected from PBIS state offices included reports, PBIS forms and checklists, and training materials.

The data analysis methods used in this study were constant comparison and grounded theory techniques developed by Strauss & Corbin (1998, p. 66). Data analysis was ongoing and conducted continuously throughout the data collection process. At the initial stages, data was compared, coded, and sorted into tentative categories based upon similar or defining characteristics. These categories were continuously compared and reorganized as new data was collected and analyzed. Similar categories were collapsed into larger categories until an overarching theory emerged that created a better understanding of the diffusion process of PBIS.

Peer review was a method used to assess for reliability during data analysis. Three colleagues of the researcher served as peer reviewers and were asked to read and code selected excerpts of the data. Ongoing small group discussions were conducted face-to-face as well as through email by the investigator. These discussions permitted sharing of observations, perceptions, and impressions, which were in turn incorporated into results of other coding and analysis methods.

Member checking was used as an internal validity technique as well as a strategy to inform participants of study findings. Preliminary study results were presented to participants via a written report and discussed in a small group setting. Participants were invited to provide feedback as to whether the findings accurately reflected their experiences, perceptions, and impressions related to school-wide positive behavior approaches. Five of the twenty-two participants attended the small group. Their feedback verified that the findings accurately described their views of PBIS implementation.

Results

Viewed as an innovation, PBIS possesses the five characteristics of innovations diffusion described by Rogers (2003). Compatibility, observe-ability, and relative advantage impacted PBIS implementation in a positive way whereas complexity and trial-ability negatively influenced the process. These findings were found to be similar across study sites.

Compatibility

Each of the 22 participants expressed agreement that the values and beliefs associated with PBIS fit well with their educational background, teaching philosophies, and vision of what schools should be. Participants universally mentioned that schools should implement PBIS because "it just makes sense." The following comments illustrate the perception of participants regarding compatibility of PBIS with their professional training, existing practices, and vision of schools as an educational institution:

Compatibility with professional training.

PBIS makes sense. I was trained in behavior modification and with my special ed background I could see that it would work. (Teacher, School B)

I understood what PBIS could do because of my education background. (District administrator)

Compatibility with existing practices.

PBIS is a natural connection with what we do. (Principal, School B)

I think PBIS flows together with everything that we do here. It fits well. (Teacher, School D)

Compatibility with vision of schools.

The minute I saw the information on PBIS, I was sold. It is what I think schools ought to be doing, where you focus on the positive. (PBIS Consultant)

We want to change student behavior rather than just punish them. We want to teach them a better way and this is part of our jobs as teachers. With PBIS, we look for ways to change student behavior with teaching. We try to use it as a teaching moment rather than a punishment moment. (Principal, School C)

Observe-Ability

An overwhelming majority of participants (95%) perceived the practice of reviewing office discipline referral data as a helpful way to observe whether PBIS was successful within their schools. The ability of participants to actually see a reduction in the number of discipline referrals by visually inspecting PBIS data was cited as a critical factor for successful implementation. These participants commented that they liked the positive results portrayed in the data and it served as positive reinforcement for their efforts. Almost all of them quoted the specific numbers and percentages of students at their schools who received office discipline referrals and mentioned whether it represented an increase or decrease in the number of referrals within a given period of time. Participants also identified "hot spots" within their buildings where most of the office discipline referrals were generated. The following comments were expressed by participants regarding the benefits of evaluating success through data inspection:

> I like being able to look at the data and see the progress that we make from year to year. When you have that data, you can really see wow, this year our referrals are down. (School social worker, School D)
> I think the data has been very helpful. We review the data each month. Our principal brings charts that show how each of the red kids (students with most intensive behavior problems) is doing, that has been the most helpful. (School social worker, School A)
>
> I think comparison of the data and being able to see that behavior has improved has made the difference. We can see that what we're doing is making a difference. (Principal, School D)
>
> When we look at the data the way PBIS tells us to look at it, we know which kids our incentives are working for. We also know who they aren't working for and which kids need more. (Principal, School C)

Relative Advantage

PBIS introduced the notion that schools should adopt a common set of behaviors that all students are expected to display in all areas of the building. In the past, there was no consistent behavior management approach used school-wide. Instead, each teacher created separate classroom rules and behavior management systems that applied only to their students while in their classrooms. Students were expected to follow the rules, which varied across settings. Those that displayed challenging behaviors were sent to the principal who determined appropriate consequences.

PBIS was perceived by participants (80%) to be an improvement over approaches they had used previously. The participants reported the most beneficial aspects of PBIS included: strong emphasis on positive reinforcement as the primary method for encouraging students to perform expected behaviors; collaborative discussions about successful and unsuccessful aspects of PBIS implementation; and advantages of training and technical assistance regarding students with challenging behavior problems. The following comments reflect participants' perceptions regarding the importance of these aspects of PBIS:

Advantage over previous behavior management efforts.

When I first started working in schools, I thought discipline was up to the teacher and the principal. The teacher sent kids out to the principal and they handled it. It seemed like all the principal did was deal with behavior problems. I think with PBIS we acknowledge kids that are doing well. That is a boost and really helps. (Teacher, School C)

Before we started PBIS, most of our schools put kids in in-school suspension or put them out of school if they behaved inappropriately. Our district has come a long way in bringing about a culture of understanding that we have to nurture children and teach them what is expected at school. (District administrator)

Advantage of collaborative discussions regarding PBIS implementation.

.I think having a committee where teachers are involved in talking about having appropriate discipline means there are well run and well managed classrooms. I think it's better for the school. (School social worker, School C)

Everyone on the committee tries to implement PBIS as much as we can together. We try to have as much open communication as possible. We realized that this is a better way to work together on these things. (Teacher, School A)

Advantages of receiving training and technical assistance.

I've been to a lot of different PBIS trainings and I think they're helpful. (School social worker, School A)

The trainings are helpful. I have gotten good ideas that I have brought back and used at school. (Principal, School D)

Complexity

Participants (80%) perceived the principles and concepts of behavior management associated with PBIS to be complex and difficult to implement on a school-wide basis. The most complicated aspects of the program to perform were identified as: functional behavior assessments, secondary and tertiary level interventions, and universal implementation of meaningful incentives for students who display desired behaviors. Participants reported these activities as requiring specialized knowledge and skills that must be conducted with a high degree of accuracy. Moreover, the activities were believed to be time and labor intensive, which contributed to the high level of complexity associated with PBIS. The following comments reflect the participants' thoughts:

If you do it right, PBIS is complex and time consuming. (School social worker, School A)

We need more consistency amongst teachers, which is a very hard thing to approach. (Teacher, School A)

I think the intensive level is very time consuming, which is an issue. It's hard to do everything that I'm supposed to do with my job and also do wraparound. (School social worker, School D)

Trial-Ability

PBIS must be implemented school-wide (universally) before secondary (targeted) and tertiary (intensive) levels begin. The participants (90%) reported that they needed to complete a considerable number of activities prior to universal implementation and expressed concern that the process required a significant commitment of time and effort. They criticized the amount of work that PBIS required them to do to implement it. In the interviews, the participants described the steps they needed to take to implement PBIS. These steps included: attending training, identifying behavior expectations, developing tailor-made instructions for all building sectors that explained how to display behavior expectations in given areas, establishing ways to recognize students who display expected behaviors, revising office discipline referral forms, designing processes for data collection and analysis, creating training methods and procedures for students and staff to teach what it looks like when behavior expectations are displayed appropriately, and motivating staff to habitually recognize students who display desired behaviors.

These activities were completed over the summer months while school was not in session. The participants stated that implementation efforts began in earnest in the fall with the first day of school. The participants (90%) reported that a designated team member coordinated collection of office discipline referral data and created charts and graphs that depicted results. These were reviewed by team members during weekly meetings and used to identify needed improvements. Team members provided ongoing training to students and staff regarding ways to display expected behaviors in all areas of the building. The team members strived to successfully maintain interest and generate enthusiasm for PBIS implementation efforts among staff. The participants organized and supervised school-wide events that recognized students who displayed expected positive behaviors. Lastly, team members attended ongoing training and technical assistance events provided by PBIS state consultants.

Once the universal PBIS implementation was in place, participants (90%) reported that they completed additional activities required for implementation of secondary and tertiary level PBIS interventions. Secondary level interventions target students who have been identified through data as being at-risk of developing serious problem behaviors. The interventions are specially designed by the PBIS team and are intended to prevent further escalation of challenging behaviors. Tertiary level interventions are intended to provide intensive services and supports when the secondary level interventions have not achieved the desired results. These students require highly individualized services that have been tailored to their unique needs. This requires the use of Wraparound.

Secondary interventions include functional behavior assessments that incorporate applied behavior analysis techniques to identify antecedents and consequences of problem behaviors (Sugai et al. 1999/2000, p. 12.) Participants (90%) described essential tasks associated with conducting functional behavior assessments. These included: attending training, collecting data to identify target behaviors, formulating hypotheses about why behaviors occurred, conducting classroom observations to verify hypotheses, identifying antecedents and consequences of problem behaviors, developing and implementing effective behavior intervention plans, and monitoring and evaluating progress.

Similarly, participants (90%) identified the tasks they completed to implement Wraparound. Wraparound is a team-based service planning process for students with intensive behavior problems (Scott & Eber, 2003, p. 139.) Participants (90%) described the following Wraparound implementation activities: attending training, meeting with children and families to identify team members (child, family, others caregivers, teachers, and service providers), scheduling team meetings, facilitating weekly team meetings to assess strengths and needs across life domains (family, emotional/psychological, social/recreation, education/vocational, safety/crisis, cultural/spiritual, medical, and legal), developing consensus among team members regarding necessary services, assigning roles and responsibilities, coordinating implementation of Wraparound plan, collecting data, and monitoring and evaluating progress.

The participants (90%) stated that the amount of work it takes to implement PBIS makes it difficult to pilot on a small scale. The following comments capture the essence of participants' perceptions regarding the possibility of implementing PBIS on a trial basis:

> It is not easy to devote the time to do PBIS. You have to set up a data system and revise your office discipline referral form. You have to get everybody on the same page with definitions of behavior. You have to get someone to enter the data, look at it, come up with interventions, actually go out and implement them, and then look at it again. This isn't an easy process to begin because there are many things that must be done before you even get started. (PBIS Consultant)
>
> We did a lot of work before we even started PBIS. We spent all summer making and laminating posters for our school that have our behavior expectations on them. PBIS takes a lot of time and people need to understand that it's not something that you just jump into overnight. (School social worker, School A)
>
> I think the intensive level is very time consuming, which is an issue. It's hard to do everything that I'm supposed to do with my job and also do wraparound. (School social worker, School D)
>
> If you do it right, PBIS is complex and time consuming. (School social worker, School B)

Study Limitations

One possible limitation of this study is the small sample size of only 4 schools. The 22 participants in the study were purposefully selected because they were members of school PBIS teams charged with coordinating implementation efforts within their building. However, most schools' teams had 6 members and only 4 PBIS team members from each school were included in the sample. Certain factors might have been missed because of the exclusion of the other members of the team or from staff not directly involved with implementation of PBIS. Another limitation is that participants were interviewed once rather than throughout PBIS implementation. Interviews were conducted five years after the district first initiated PBIS in all schools. The opportunity to ask questions of participants as the process unfolded might have offered different insights.

Discussion

PBIS is an educational innovation that shows great promise for increasing students' socially appropriate behaviors at school. Diffusion of innovations concepts explain how new ideas become widely used. Identification of PBIS' positive and negative innovation characteristics provide valuable insights that explain why some schools have struggled with PBIS implementation while others have successfully achieved it. Understanding the strengths and weaknesses of PBIS relative to these characteristics explains why it is difficult to achieve fidelity, thereby reducing the likelihood that schools will successfully adopt PBIS.

Diffusion of innovations is influenced by five characteristics (compatibility, observe-ability, relative advantage, complexity, trial-ability) of innovations. In this study, the characteristics of compatibility, observe-ability, and relative advantage were found to impact implementation of PBIS in a positive way. In terms of the characteristic of compatibility, PBIS is compatible with participants' educational background and professional experience. It corresponds closely to the expectations of what it means to educate children. In the context of behavior, it means teachers educate students how to behave positively in school and then reward them for doing it correctly. The practice of teaching positive behaviors to students is perceived by teachers to be consistent with their other instructional responsibilities. Principals, concerned about safety and discipline, also appreciate the importance of having students understand what is expected of them in terms of behavior. School social workers and counselors, concerned about fairness and equity, value the uniformity of expectations and reinforcement for positive behavior. In general, PBIS is perceived by these professionals to be compatible with their views regarding the environment that schools should create to promote socially appropriate behavior among students.

PBIS possesses observe-ability as another positive innovations diffusion characteristic. The respondents were able to see in a visual way whether PBIS worked by examining office discipline referral data over time. PBIS coordinators at each of the four schools created charts and graphs of office discipline referral data that could be easily read and understood by others. In turn, PBIS team leaders disseminated these graphs and charts to PBIS team members who used them as the basis for discussion on ways to increase successful implementation. The PBIS team leader or principal also presented data for discussion at faculty meetings, communicated results with parents, and posted charts and graphs on bulletin boards in the main office. The ongoing process of reviewing office discipline referral data provides implementers with built-in opportunities to observe program successes as well as areas of concern and make changes, as necessary.

Another aspect of observe-ability was the placement of signs, posted throughout the buildings, which detailed expected behaviors. These posters reinforced key principles of PBIS and served as continuous visual reminders for the students and staff to comply with PBIS expectations. When student behaviors matched the expectations listed on the posters, it provided observable proof that the program was working well.

The relative advantage of PBIS is another innovations diffusion characteristic that positively impacts implementation. Prior to making a commitment to implement PBIS, participants assessed the degree to which the approach was an improvement over existing practices. From

their perspective, PBIS represented great progress over the way behavior issues had been addressed in the past. PBIS initiated the use of school-wide behavior expectations along with universal methods for teaching and reinforcing desired behavior thus bringing a consistency to behavior management. Although principals still retained responsibility for determining appropriate consequences for severe rule violations, PBIS emphasized school-wide prevention of challenging behaviors. Because PBIS is perceived to be superior over past practices, team members are strongly committed and motivated to work diligently to bring about successful implementation.

Although participants perceived PBIS to be a better approach than existing practices, they acknowledged that everyone did not share their enthusiasm. While PBIS reduces office discipline referrals, it does not eliminate them entirely. A small percentage of students still require assistance over and above school-wide PBIS interventions. There is a small number of teachers who do not perceive PBIS to be an improvement over other behavior management methods. This dissatisfaction may reflect a clash between teachers who prefer more punitive school discipline approaches for correcting behaviors with those that appreciate positive reinforcement approaches that reward students who exhibit desired behaviors. To respond to such criticisms of PBIS, team members can provide rewards, incentives, and recognition for teachers when their students exhibited desired behaviors. This practice encourages teachers to promote and utilize basic principles of PBIS and improves acceptance of the program.

The complexity of PBIS requirements was a negative innovation characteristic. The magnitude of required systemic changes adversely impacts efforts to implement the program. The most challenging aspect of implementation is the difficulty in persuading all staff to habitually dispense positive reinforcements, referred to as “universals” or “incentives” for students that displayed expected behaviors. It was also formidable to provide effective interventions for students who exhibited severe behavior problems. Specifically, the staff must find the time to implement secondary and tertiary level interventions such as functional behavior assessments and Wraparound. Given the numerous demands placed on schools by the No Child Left Behind Act and other educational initiatives, there is little room for flexibility; teachers do not have extra time to spare. Although they value what PBIS can provide, teachers are overwhelmed by the extra time and effort required to do it. They perceive the PBIS tasks as adding to their existing workload and compelling them to engage in efforts over and above what they are required to do.

The sophisticated combination of knowledge and skills associated with the proper conducting of functional behavior assessments and Wraparound coupled with the extensive amounts of time and energy required to do them negatively impacted PBIS implementation. The functional behavior assessment process is complicated. If done correctly, events that occur immediately before and after the problem behaviors are identified, which lead to the development of effective intervention strategies. However, if done incorrectly, antecedents and consequences of problem behaviors are mistakenly identified, which results in the creation of intervention strategies that inadvertently reinforce contributing environmental and situational factors.

The trial-ability characteristic of PBIS negatively impacts implementation. To be successful, PBIS must be implemented school-wide, which requires massive system-wide changes and staff cooperation. Unlike other behavior management approaches, there is virtually no way to successfully implement PBIS on a trial basis or within an individual grade or unit of

the school. The schools in this study were mandated by the school district to adopt PBIS. Therefore, they had no choice but to implement PBIS and make the enormous changes required for implementation. It is possible that schools who attempt PBIS and find the compulsory changes too overwhelming might abandon implementation efforts while other schools may be deterred from even attempting it.

Innovations diffusion characteristics help explain why it is difficult to adopt and implement PBIS on a school-wide basis. PBIS possesses a high degree of compatibility as an innovations diffusion characteristic relative to the educational background, experience, and philosophy of potential adopters. This is noteworthy because many innovations fail to achieve widespread adoption due to lack of compatibility with existing values and preferences (Rogers, 2003). The relative advantages of PBIS suggest that school-wide behavior expectations along with universal methods for teaching and reinforcing desired behavior can be achieved effectively. In addition, the observe-ability of PBIS as an innovations diffusion characteristic allows implementers to see implementation progress over time by visually inspecting data. These three aspects of PBIS are its strengths and should be emphasized to potential adopters when first suggesting PBIS adoption in schools.

The possible negative reactions of potential adopters must be also anticipated. The task of persuading schools to adopt PBIS is difficult because of the massive changes that must be made prior to execution as well as the inability to implement PBIS on a trial basis. Once PBIS is implemented, there are ongoing challenges that must be overcome to achieve successful implementation. Despite these limitations, PBIS is a remarkable educational innovation that can dramatically reduce problem behaviors in schools.

Conclusion

The results of this study show that innovations diffusion characteristics of PBIS influence its successful or unsuccessful adoption and implementation. Key personnel responsible for encouraging schools to implement PBIS should create simple execution strategies that harness the strengths of PBIS and alleviate its limitations. By doing so, more schools will be able to successfully adopt the approach leading to more widespread implementation.

About the Author

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