The Crane Reynolds Level System:

A Model for Reintegrating Students with Behavior Disorders into Inclusive Settings

Students diagnosed with emotional disturbance (ED) display significant delays in the acquisition of social, as well as academic skills (Kauffman, 2005; Maag & Katsiyannis, 1996; Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005; Wagner, Friend, Bursuck, Kutash, Duchnowski, Sumi, Epstein, 2006; Walker, Kavanagh, Stiller, Golly, Severson, & Feil, 1998). Because of the social and academic behavior they exhibit in the classroom, special education programs provide educational accommodations for approximately 475,000 students diagnosed with this disorder. Sixty-five percent of these students are 12 years of age and older (U.S. Department of Education, 2001), indicating that their problems are not remedied in elementary school. In fact the prevalence of students diagnosed with this disorder steadily increases as they age. The most numerous group is those 15 years of age. The prevalence decreases at age 16, but presumably this is because ED students have the highest drop out rate of any disability group (Wagner et al., 2005; Wagner, 2005).

A broad range of school behaviors characterize students with ED. For example, they exhibit considerably more socially maladaptive functioning than their non-disabled peers (Cullinan & Sabornie, 2004; Cullinan, Osborne, & Epstein, 2004). On any given school day, a student with ED might display verbal and/or physical aggression toward peers and adults, noncompliance with typical school rules, various forms of classroom disruption, a series of off-task behaviors and destructiveness of personal or school property (Cullinan, Epstein, & Kauffman, 1984; Kauffman, 2005; Wehby, Symons, & Shores, 1995). Academic achievement levels for this group are also significantly behind same-aged peers. Average reading comprehension scores for this population are at the 24th percentile. The average math scores for students with ED are at the 34th percentile (Wagner et al., 2006). These students are disconnected from both school and social activities. They have a high rate of absenteeism, and they produce low GPAs even when they score high on aptitude tests.

Due to the nature and extent of the academic and social difficulties exhibited by ED students, educational placement for this group of students is restrictive when compared to the placements of their peers with other disabilities. A longitudinal study conducted by Wagner and Davis (2006) found that 7.6% of students with ED attend alternative schools, 14.3% attend

special schools for students with disabilities and only 74% attend public schools. Students with ED who do attend public schools are less likely than students with other disabilities to take academic courses in the general education setting and are more likely to take all instructional and extracurricular courses in a special education setting. Due to their restrictive, self-contained placements, they are also less likely to participate in extracurricular and other group activities.

Nickerson and Brosof (2003) investigated this phenomenon and discovered that 85% of students with ED who attended a private facility for students with behavior disorders were perceived to be lacking the coping strategies, peer relationships, and emotional maturity thought to be necessary for successful participation in general education settings. Possibly this perception provides the rationale for other authorities' contention that separate classes are actually a superior placement alternative for student with emotional and behavioral disorders (Kauffman, Bantz, & McCullough, 2002).

The placement of special education students who misbehave in restrictive educational environments is not limited to those who are formally diagnosed with ED. Many students with autism spectrum disorders (ASD) and attention deficit-hyperactivity disorders (ADHD) also exhibit aberrant behavior. As with ED, the characteristics exhibited by these students include deficits in social skills and other observable, inappropriate behaviors (see Diagnostic and Statistical Manual, IV, American Psychiatric Association, 2000). Previously, many students with autism received educational services under the ED label. Now, they are now included as a separate disability category by IDEA. Students with ADHD are still not recognized by IDEA. As a result, educational services for these students must be provided under another disability category such as "other health impaired" (OHI).

In addition to students with ED, ASD and ADHD, a significant number of students with learning disabilities (LD) also have concomitant behavior disorders (Fessler, Rosenberg & Rosenberg, 1991). If their behavior is sufficiently disruptive, they, too, may be removed from general education classes. In some cases, they may be placed in self-contained, special education classes even though they are receiving services as learning disabled. Left unchecked their disruptive behaviors may worsen, since the focus of the self-contained, special education classes is on behavior rather than academics.

Most students with behavior disorders never fully develop academically and socially (Wagner 2005; Wagner et al., 2005; Wagner et al., 2006). As a result, their future beyond middle

school and high school is dismal. Based on a longitudinal study of the educational and social success of 8,000 students with emotional disabilities, fifty-eight percent are arrested within five years of leaving high school (Wagner, 1995). According to Wagner (1995, p.103) these former students are twice as likely as those with any other disability to live in a "correctional facility, halfway house, drug treatment center, or on the street." Wagner's findings were supported in a subsequent study by Greenbaum and Dedrick (1996) who found that in a sample of 753 children with ED, two thirds (66%) had at least one contact with police in which the student was believed to be the perpetrator. In addition, 34% were adjudicated delinquents or convicted of a crime. As a result of the poor social outcomes characteristic of students with behavior disorders, post secondary public institutions and structured behavior management programs are required for providing the support, boundaries, consequences, and protection necessary for insuring the safety of this population, as well as others in society.

These statistics make it apparent that public school programs, residential treatment centers and correctional facilities intended to remedy students' behavior disorders are failing to produce meaningful and lasting outcomes. The lack of success attained by these programs coupled with the high numbers of students served in these restrictive settings is particularly troubling in the educational climate following the passage of No Child Left Behind (2001) and the most recent reauthorization of IDEA (2004). Both of these legislative mandates emphasize the importance of meeting the educational needs of all students within the confines of the least restrictive educational environment (LRE). Implementing these legislative mandates seems even more crucial in light of the poor success demonstrated by more restrictive educational programming. Nevertheless, these legal imperatives are difficult to achieve because of the aberrant behaviors exhibited by these students when they are placed in inclusive settings.

This difficulty is exacerbated by the dramatic increases in the numbers of students who qualify for special education services. Recent statistics from the U.S. Department of Education (2001) indicate that an estimated 5.75 million students between the ages of six and 21 receive special services. In the last decade of the twentieth century, the number of students labeled with a disability rose by 30%, while the school age population increased by only 11 percent. Students with behavior disorders are over represented in these increases. For example, the prevalence of autism has recently increased to 1 in every 150 births (Autism Speaks, 2007). Despite the increased prevalence of ASD, its diagnosis is less common than that of ADHD (Centers for

Disease Control and Prevention [CDC], 2007). The number of students diagnosed with learning disabilities has also seen a dramatic increase in recent years. The U.S. Office of Education (2001) reports approximately three million students have been diagnosed as LD. This represents a 200% increase in the prevalence of this disorder since the category was created in 1977 (Vaughn, Linan-Thompson, & Hickman, 2003). In spite of the complications presented by the increased numbers of these students and the difficulties in managing their behavior in inclusive settings, school districts have begun to examine alternatives for including an increasingly diverse range of learners in general education classes, and they are required by law to justify the extent to which any student receives educational services in more restrictive venues (IDEA, 2004).

Fortunately there is a body of empirically-supported evidence suggesting that interventions grounded in behaviorist principals can be effective for remedying the academic and social problems (Walker et al., 1998) that hinder mainstreaming students with behavioral disorders. Some of the more successful behavioral programs seek to modify the behavior of students placed in self-contained special education classrooms in order to mainstream them into more inclusive educational placements. Since the treatment alternative in these classes is based on principles of behaviorism, they are often referred to as adaptive behavior (AB) classes.

The most commonly described programs of this type are referred to as "levels system programs," because students who approximate progressively more socially appropriate behavior advance to higher levels and, thus, earn greater privilege and responsibility (Farrell, 1997). There is no universally accepted model for levels system programs, but they typically utilize functional behavior analysis, stimulus control, differential reinforcement of desired behavior, shaping, modeling and response cost to achieve the ultimate goal of self-management and reintegration of students into inclusive settings (Bauer, Shea, & Keppler, 1986). Even though there is a lack of research on the development and effectiveness of level systems, one model that has shown promise with this population is the Crane and Reynolds Level System (CRLS).

The Crane and Reynolds Level System Program Features

The Crane and Reynolds Level System (CRLS) is a model for reintegrating students with behavior disorders into the least restrictive educational environment possible. The model allows districts to increase the number of students with behavior disorders served in less restrictive and more inclusive educational placement alternatives, and, simultaneously reduce the number of AB type classes that are required. Maintaining this dual focus is an important aspect of the CRLS model because special education and level system programs, in particular, have been criticized for their failure to successfully reintegrate students with behavior disorders into general education classes (Farrell, 1997). Also, it is important to reduce the number of AB type classes required because this placement alternative is difficult to staff with highly qualified teachers and is expensive for districts to maintain.

In order to achieve its objectives, the CRLS model offers districts an intervention system consisting of several unique components. They include: 1.) *Personnel Preparation*, 2.) *Campus-based Consultation*, and 3.) *Behavior Management*. These components are implemented over a three-year time period and target every elementary school, middle school and high school campus in the participating districts. The three year implementation phase is followed by an *Exit Strategy* that allows districts to assume full responsibility for continuing the CRLS model. A detailed explanation of the Crane Reynolds Level System, along with all the accompanying forms and materials can be found at http:// www.cranereynolds.com.

Personnel Preparation

The CRLS model offers extensive personnel preparation for all staff members within the district. This training sequence which is provided to administrators, general education teachers, special education teachers and paraprofessionals continues over the entire three year implementation period. Strands included in the training sequence for each year of program implementation are shown in Figure 1:

Figure 1

Three Year Sequence of Personnel Preparation

Year One

Strand 1:   Behavior Management System

Strand 2:   Social Skill Curriculum

Strand 3:   Crisis Management and Behavior Intervention Plans

Year Two

Strand 4:   Behavior Management System Interventions Component

Strand 5:   Individualized Crisis Management Plans

Strand 6:   Individualizing Discipline Options

Year Three

Strand 7:   Student Thinking Styles

Strand 8.   Student Learning Styles

Strand 9:   Modifications and Tests

Collectively, the curriculum in these personnel preparation strands is designed to replace ineffective teacher behaviors such as punishment, threatening, blaming and criticizing with empirically validated, proactive strategies for preventing behavior problems and reinforcing positive student behavior. Teachers learn to remedy student behavioral deficits using student problem solving strategies and social skills development. They learn to eliminate chronically disruptive behavior through the use of token reinforcement, time-out, contingent reinforcement and response cost (Walker, Colvin and Ramsey, 1995). After mastering the curriculum in the three year training sequence, each staff member in the district is qualified to implement behavioral interventions and instructional

accommodations for students with behavioral disorders throughout the full continuum of public school placement venues, including full inclusion classes. These newly acquired skills facilitate the reintegration of students from more restrictive venues after they have acquired an acceptable repertoire of pro-social behaviors. Teachers are also equipped to successfully manage a much broader range of student behavior within the context of the general education class, thereby obviating the necessity of many students being referred for special education in the first place. In fact, eliminating the unnecessary placement of students with behavior disorders is perceived to be the most pro-active way of reducing the number of students being educated in restrictive venues.

Campus-Based Consultation

In addition to a comprehensive program of personnel preparation, the CRLS model also provides districts with two campus-based consultation procedures. The consultation procedures include are 1.) *On-site CRLS Consultation*, and 2. *"In-house Trainers"*.

On-Site CRLS Consultation. At least four times a year, on-site consultation is provided directly to school districts. During these site visits, CRLS consultants provide teachers and paraprofessionals with technical assistance regarding program component design and implementation. They also provide assistance in refining the behavioral interventions and instructional accommodations prescribed for students with behavior disorders. These consultation visits are extremely important during the initial years of program implementation while teachers are mastering the finer points required for independently establishing the system in their classrooms.

On-site consultation visits also provide personnel preparation for *"In-house" Trainers*. Trainers are designated by the district for each school campus. They receive preparation that follows a similar format as that previously described for district wide personnel. As such, it occurs over the course of the three year implementation phase with a different strand being developed each year. The strand for year one focuses on Discipline Skills, year two focuses on Classroom Management Skills and the third year focuses on Consultation Skills.

"In-House Trainers". Ultimately, trainers acquire all the skills of CRLS consultants and serve as a constant resource for classroom teachers who are implementing the CRLS model on a daily basis in their classrooms. They are able to support teaching faculty as CRLS consultants would, and they can make changes at the classroom, campus or district levels. They are

ultimately responsible for providing support for teachers who staff the full continuum of placement venues that serve students with behavior disorders. Among other essential skills, *"In-House"* Trainers are qualified to use the *Level System Checklist, Time Sampling Forms, Data Interpretation Worksheets and the CRLS Consultation Change Model.* They are able to analyze the components of the classroom management program in any given classroom and provide suggestions for increasing its effectiveness. They are also qualified to consult with any AB teacher who is having difficulty implementing a successful levels system program.

In addition, *"In-house" Trainers* are available to observe non-conforming students in any classroom in the district. By executing a *Time Sampling Form* and *Date Interpretation Worksheet*, the trainer can identify behavior patterns and design a series of individualized, evidence-based interventions that are appropriate for use in the teacher's classroom. Trainers learn to utilize newly acquired skills within the context of the *Consultation Change Model* which ensures that they will be well received and perceived as a valuable resource by the teacher.

Behavior Management

Central to the success of CRLS model is a sophisticated, student focused program of behavior management. The program includes implementing evidence-based, Behavior Intervention Plans (BIPs) for each student who exhibits severe behavior disorders. Other aspects of the behavior management program include a *Social Skills Curriculum*, *Academic Management*, *Crisis Management* and the *Classroom Management Level System*.

Behavior Intervention Plans. BIPs can range from a simple behavior management program with social skills training and academic assistance to complex, structured behavioral programs coupled with individualized discipline plans and medical and social agency intervention. BIPs are designed for individual students based on the needs of that student. It is important to note that BIPs conform to requirements specified in the student's Individualized Education Program (IEP). Each includes behavioral goals and objectives, a description of the classroom behavior management plan, and a contingency plan for discipline options.

If the student's BIP is not successful, a four step process of *Behavior Intervention Assistance* is initiated. This intervention assistance is provided by district Instructional Specialists, Diagnosticians, Psychologists and *"In-house" Trainers*. These specialists, who are

already members of most school faculties, learn to assist teachers in implementing the four step

process necessary for considering more restrictive placements for a student with behavior

disorders. The purpose of the four step process is to provide intervention assistance to students

before they are referred for placement in restrictive educational venues. A flow chart depicting

the four step process is shown in Figure 2. As can been seen, the initial step undertaken

for a student who exhibits unacceptable behavior involves intervention assistance in the form of modifying the student's *Behavior Intervention Plan.* If initial modifications are not successful, the plan is again modified as part of Step Two, with emphasis on examining aspects of the plan that are and are not successful. If the student is still having difficulty, a problem solving strategy is devised by behavior specialists who are called in during Step Three. As can been seen in Figure 2, the BIP detailed in Step Three is much more comprehensive. It is implemented and studied for a minimum of six weeks and is linked to the review process required by IDEA (2004). It is only after the first three steps have proven unsuccessful that the student is considered for placement in the restrictive environment of an AB class.

Figure 2: **Four Step Special Education Process of Behavior Intervention Assistance for**

Considering a More Restrictive Placement when Undesirable Behavior Increases
(Note: Students with the following disabilities/diagnoses: A U, ED, OHl: ADHD, OCD, Tourette's, must have a ElP)

Step 1: Campus Instructional Specialist Diagnostician. DT. AB Teacher: BIP or Revision of Current BIP:

A. **Check the FBA through interviews:**
  *Teachers _____   * Counselor/Psychologist ____   *Parent _____   * Student_____
B. **Folder Review**
  • Have modifications been followed, are they working?
  • Check current IEP's for appropriate level of performance
  • Assessment?
  • Identify Antecedent behavior data of at least 4 weeks
  • Transition Plan: review
  • Discipline Review (Basic Data Interpretation form setup)
    (Including interventions, conferences, contracts, etc.)
  • Do we have a Psychological report? Recommendation: have we tried them, results?
C. **Observation:**
  • Time Sampling (Attach)
  • Data for at least 4 weeks

Step 2:Revised Step 1 BIP *(Note: repeat Step 1 with emphasis on what's working and not working in ElP)*
  Additional time?   Meds/RX?   More restrictive environment?

  A.   **Generate BIP or Revise Current BIP: ARD**

Step 3: Problem-Solving Plan: Programming! Revision of BIP

A. **Please contact Coordinator for Behavior, Psychological staff; review/address the following:**
  • Meds/Rx
  • More Special Education services required?
  • More restrictive environment?
B. **Campus Staff Plan** (Coordinator for Behavior, Psychological Staff meet to discuss intervention
  • Develop structured BIP (see attached)
C. **Timeline for Plan**
  • Follow-up/monitor: establish intervals, minimum of six weeks_____
  • Needed training _____
  • Needed assessments (must have current SBISD Psychological Report within 2 years)
  • Needed communication! Coordination of outside services: ex: (Alliance, Inter-Agency Forms, Wrap Around Program)
  • Trial period of plan (minimum of6 wks)
        o   Trigger points for ARD Review (Specific behaviors) or
        o   Pre-Set Schedule for ARDs (example: every 30 days) or
        o   Schedule next ARD
D. **Plan-Review ARD or Staffing**

  Student is still having problems and we have allowed the plan time to work:

Step 4: BIP and/or Placement

A. **Contact IS for Self-Contained Placement**
    Safety_____Structure_____Lack of Success
                OR

B. IEP/BIP Revision with More Special Education

Social Skills Curricula.   The Social Skills Curriculum is a separate course in the students' daily schedule. Its purpose is to provide them with an awareness of and practice in appropriate coping and interaction skills. At the elementary level students study the areas of communication, assertiveness, responsibility, and problem-solving. At the middle school level these four areas are continued and pre-employability social skills are added. At the high school level, social skills training in these five areas continues. The emphasis in high school is on developing a repertoire of "employability" social skills that insures the student's success in the work place.

Academic Management.   Recognizing that pro-academic behaviors preclude the possibility of misbehavior, the CRLS model makes every effort to design and implement challenging, yet attainable instructional objectives for students with behavior disorders. This is especially important for students with learning disabilities who have concomitant behavioral issues. Many of these students have been frustrated in the past by inappropriate instruction that resulted in school failure. To avoid this cycle, the CRLS model prepares teachers to match instructional strategies to students' learning and thinking styles and to their instructional levels. Instructional modifications are tailored to account for these factors and to take into consideration students' pre-requisite skills, work pace and relevant scheduling issues.

Crisis Management .   If necessary a *Crisis Management Plan* is designed for students with behavior disorders. The plan insures that school crises are managed consistently and therapeutically. To support the effective implementation of crisis management, personnel preparation equips all school faculty and staff with the skills necessary for engaging in redirection, de-escalation, and therapeutic holding techniques.

Classroom Management Level System for AB Classes.   The CRLS model conceptualizes placement in AB classrooms as a relatively short term, therapeutic placement alternative for students who have the most severe behavior disorders. Student response to behavioral interventions is carefully monitored, adjusted and documented to empirically support intervention effectiveness. Each student entering the program starts on Level One and gradually learns to exhibit appropriate responses through applied behavior analysis (ABA) techniques (see Alberto & Troutman, 2002). Students advance to successively higher levels when they

accumulate points designated for a particular level within a specified period of time. Emphasis is on an accumulated total within a 15-day period so that students can have "good" and "bad" days. Each level provides increasingly more responsibility and freedom to students and requires increased impulse control and pro-social behavior.

Figure 3: *Student Progress in the Crane/Reynolds Level System*
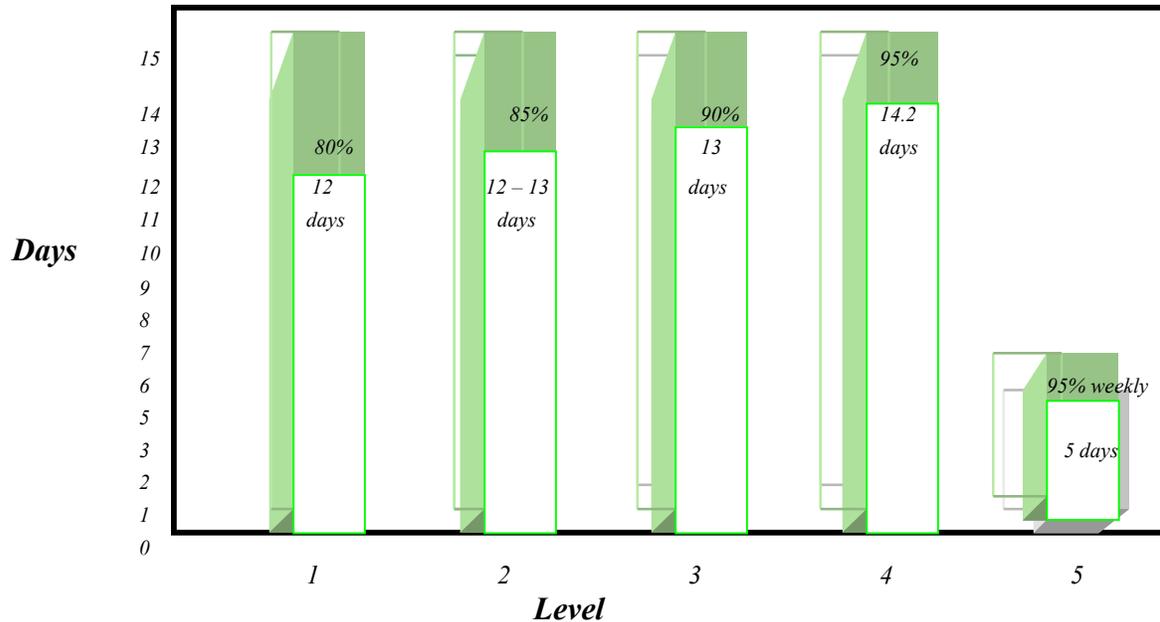
•*Students must earn the % of points designated for each level in a 15 day period. Level 1 = 80% of possible points in 15 days. Level 2 = 85%; Level 3 = 90%; Level 4 = 95%. Level 5 students must earn 95% of their points weekly. When they reach the number of points for the expected the Level, they move to the next level.*

•*Students move by points, not days. When they reach the number of points for the expected the Level, they move to the next level. If students earn all points daily they can move to the next level in the designated # of days (shaded).*

•*Students have 15 days to earn the expected number of points per level on Levels 1 – 4. If they do not earn the number of points needed to move to the next level, they simply restart the current level. On Level 5, students must earn 95% of weekly points to stay on Level 5.*

• *Students can go back one level if they exhibit an AD behavior (e.g., defined high level inappropriate behavior – see ideal system)*

•*Data –driven programming interventions are included to motivate students to maintain progress, to stabilize student behavior during multiple level drops, to accelerate progress in 15 day period when students have stabilized behavior & to stabilize students who cannot get off Level 1.*

The CRLS is perceived as a teaching system rather than a behavior control system. Students at each level learn required behaviors. Opportunities are provided for students to practice the behaviors and they are subsequently reinforced. On Levels One through Four, the teacher provides verbal and nonverbal feedback regarding behavior at 15 minute intervals. Reinforcement is awarded on an hourly basis. Point sheets are utilized to structure student feedback and to monitor student progress. On Level Five, the marking of point sheets is faded to hourly intervals with students co-marking their point sheets. After Level Five is attained, the student gradually begins transitioning into a general education setting. In order to insure stabilization of behavior and increase the probability of a successful transition, subsequent classes are added slowly.

Level One: Level One emphasizes crisis prevention and stabilization of the student's behavior. Level One also includes an instructional component. Initially students are taught the behavior-consequence relationship. Initial instruction is followed by a social skills curriculum that addresses classroom rules, level system components and communication skills. In order to advance to Level Two, students are required to earn 80% of the possible points for 15 consecutive days.

Level Two: Level Two focuses primarily on the student's ability to appropriately demonstrate parallel socialization skills. Essentially, students are expected to interact appropriately in presence of one another without directly participating in activities together. Desired behavior at Level Two is again accompanied by greater privilege. Contingent upon appropriate behavior, students may access lockers, eat lunch at a table with others and participate in weekly activity reinforcers with other students. Social Skills instruction continues to develop communication skills, personal responsibility and an understanding of body language. Students are required to earn 85% of possible points for 15 days in order to move to the next level.

Level Three: Practicing social and communication skills with others in mainstream settings is the chief concern of Level Three. When appropriate, students are encouraged to interact with peers on levels three, four and five, and they must engage with peers a minimum of three times daily in order to practice appropriate social skills. At this level, privileges involve greater freedom and increased impulse control expectations which provide students their first opportunity to demonstrate the social and coping skills learned on Levels One and Two. For example, students are required to independently transition to and from the bus, walk in the

hallways, and eat in the cafeteria. If earned and deemed appropriate, students may engage in a privileged responsibility (e.g., peer tutoring, hall monitor, or office helper). Social Skills instruction emphasizes effective communication, responsibility, goal setting, and basic assertiveness. To advance, students are required to earn 90% of the possible points over 15 days.

Level Four: Students advancing to Level Four gradually increase their interactions with others to a minimum of four times per day. These students begin completing assignments from the resource room or general education curriculum, depending on their academic achievement level. Coping and interaction skills are carefully analyzed so that BIPs can be modified if necessary. Social skills development at Level Four addresses behavior in a variety of environments and provides instruction in goal setting, personal responsibility, effective communication, assertiveness training, coping, and problem-solving skills. In order to advance to the next level, students must earn 95% of the possible points over a 15 day time period.

Level Five: Level Five prepares students for transitioning into inclusive settings. A self-management point sheet is co-marked hourly by the teacher and student. Points earned each hour are calculated by averaging student and teacher ratings. Students must maintain 95% of the possible weekly points to remain on Level Five. Students are required to interact appropriately with others a minimum of five times per day. As a related service, counseling sessions are provided that target student fears and difficulties anticipated in the inclusion setting. At this point, teachers in the AB class mimic the work, assignments, test formats and behavioral expectations of the general education classroom. After 20 successful days on Level Five, students begin transitioning into mainstream classes at two-week intervals. Social Skills instruction continues daily with emphasis on problem-solving and pre-employability (middle school) and employability units (high school).

Exit Strategy. After the three year implementation phase, school districts are capable of independently maintaining the CRLS model on their public school campuses and the *Exit Strategy* is implemented. In actuality, the CRLS model begins the exit strategy at the end of the first year of the implementation phase. At this point *"In-house" Trainers* are qualified to serve as consultants for the level system and the social skills curriculum. Each subsequent year ends with trainers assuming a greater role in the consultation process. They are able to conduct personnel preparation and oversee all aspects of the behavior management program. After year three, a

program evaluation and exit report is provided to the district's Director of Special Education. This extensive report provides a summary of progress at the classroom, campus and district levels. As part of the exit report, the CRLS model provides training materials, training sequences and technical assistance for transitioning into a model of "district ownership." Finally, each school district is provided with the option of follow-up workshops or consultation trainings and/or student consultations as needed.

Purpose

Levels management systems like the CRLS model have been adopted for use in many self-contained classrooms that educate students with behavior disorders. Yet, there is very little evidence that attests to their efficacy. The purpose of this project, therefore, was to examine the effectiveness of the Crane and Reynolds Level System in attaining its major objectives of reducing the number of students with behavior disorders who require educational services in self-contained AB type classes, and, therefore, the number of these classes required for educating students at the various instructional levels (i.e. elementary, middle and high school).

Setting

In order to analyze the effectiveness of the CRLS model, the placement data for all students receiving educational services in AB classes in a large suburban school district during the seven academic years beginning in 2000-2001 and ending in 2006-2007 were examined. The district is one of several suburban public school systems in a large, southwestern metropolitan area. The district educates 33,000 students in kindergarten through the 12th grade. The majority of students are Hispanic (52%). White students comprise 34% of the student population, and African American students represent 8% of the total student body. Six percent are classified as other ethnic groups, including Asian.

Participants

In the fall of 2000, the district adopted the Crane and Reynolds Level System as the model for educating and treating all students with behavior disorders. After the three year implementation phase, the program became fully operational in the 2002-2003 academic year and has since continued for four years. The district's major objective in adopting the program was to reduce the number of students placed in self-contained, AB classes. Initially, placement of

students in the AB classes occurred based on the results of a Child Study Committee decision that applied diagnostic criteria specified by IDEA (2004). In accordance with the requirements of IDEA, Child Study Committees in the district consist of, but are not limited to, a diagnostician, a licensed school psychologist, general and special education teachers, parents, principals, and adaptive behavior staff (see Individuals with Disabilities Education Act, 2004).

Subjects in the study included district students who were receiving educational services in AB classes at the elementary, middle or high school levels. Some of the students in these classes were served under the ED label. Others were labeled as LD or ASD. Students with ADHD were served under the OHI label in this district. Presumably, students with LD, ADHD and ASD who were placed in AB classes received these placements based on extreme concomitant behaviors that interfered with their ability to attain their educational potential in a less restrictive environment. Regardless of the disability diagnosis, in each case the committee agreed that a placement in an AB class was the least restrictive educational placement possible due to persistent behavior problems that interfered with the student's ability to engage in more inclusive school work or classroom activities. In many cases the students posed safety concerns for themselves or others either in the general education classroom or on the school grounds.

The annual number of students placed in AB classes and the annual number of classes required to educate them were outcome data used to assess program effectiveness. Data were collected from Special Education Management System (SEMS) reports. These reports are provided annually to the state of Texas. SEMS reports are state required data that identify the numbers, names, disabilities, and placement of all special education students for each school year. Data were collected for the initial year and continued each of the subsequent years that the CRLS model has been in operation.

The number of students placed in the AB classes from kindergarten to 12th grade were identified, separated by school level (elementary, middle, and high) and categorized by disability type. Percentages of reductions for students in AB classes were then computed to compare the beginning number of students with the current number of students placed in these classes at each school level and for each disability category. Finally, the number of AB classes funded by the district at each of the school levels was summarized.

Evaluating CRLS Model Outcomes

Students categorized with each disability label and at each school level are shown in Table 1.

Table 1:   ***Summary of Students with Various Disabilities Placed in AB Classes at All School Levels***

Year	Elementary School				Middle School				High School				Total
	ED	LD	OHI	AU	ED	LD	OHI	AU	ED	LD	OHI	AU	
00-01	22	5	3	0	47	112	15	0	33	91	11	0	339
01-02	37	1	4	0	59	58	14	0	39	65	16	0	314
02-03	25	1	3	1	46	17	9	2	47	65	13	0	229
03-04	27	0	2	0	29	3	4	1	23	23	8	0	147
04-05	21	0	2	0	20	3	3	0	22	20	7	0	98
05-06	19	1	3	0	14	4	3	0	19	18	7	0	88
06-07	14	0	0	0	16	0	0	0	10	0	6	0	46

Note. ED= Emotional Disorder, LD= Learning Disability, OHI= ADHD, AU= Autism

As can be seen in the table, the number of students receiving services in AB classes decreased each of the seven years the program has been in operation. In the initial year of the program, the combined number of students served in AB classrooms at the elementary, middle and high school levels was 339. During the 2006-2007 academic year, this number had been reduced to a grand total of 46. An examination of scores at the each of the school levels and for each of the disability categories indicates that there was a substantial reduction of students in all four of the disability categories and at all three school levels.

Presently, only students with ED (N = 40) and students with OHI (N = 6) are placed in AB classes. Fourteen of the students with ED are placed in elementary AB classes, 16 are placed in middle school AB classes and 10 are placed in high school AB classes. The only other disability category represented in AB class placement is the OHI category, indicating that these

students are diagnosed with attention deficit-hyperactivity disorder. All the students labeled with OHI who are placed in AB classes are in high school.

Reductions were most dramatic for students labeled as learning disabled. At the beginning of the program, 208 of the 339 students placed in AB classes were receiving services on the basis of a diagnosed learning disability. In the most recent year of data collection, no students labeled as learning disabled were being educated in this restrictive environment. While the decrease was not as dramatic, placement of autistic students in these classes also ceased. As previously mentioned, six students with OHI are still receiving services in AB classes, but that number represents a decrease from a high of 16 which occurred during the second year of program implementation. With the exception of the six OHI students currently placed in AB classes, all the students remaining in the classes are diagnosed with Emotional Disturbance.

The ability of the CRLS model to reduce the number of students with ED placed in AB classes was of particular interest. At the beginning of the program, 102 of the students placed in AB classes had an ED diagnosis. Currently, a total of only 40 students with ED are placed in self-contained AB classes. All other students in the district who are diagnosed with ED are placed in much less restrictive environments. Some are fully included in general education classes or classes for students who are gifted. Others are mainstreamed in varying degrees with academic and behavior support from "pull-out" programs such at the resource room.

In order to compare the decreases of all students in the district assigned to self-contained classes over the seven years that the CRLS was in operation, percentages were calculated for the pilot year of program operation and the most recent year of program operation. These percentages for the various disability categories and the three school levels are shown in Table 2.

Table 2: *Percentage Decreases in Students Placed in Elementary, Secondary and High School AB Classes*

School Level	2000-2001	2006-2007	Percentage Decrease
Elementary	30	14	54%
ED	22	14	36%
LD	5	0	100%
OHI	3	0	100%
ASD	0	0	0%
Middle	174	16	91%
ED	47	16	66%
LD	112	0	100%
OHI	15	0	100%
ASD	0	0	0%
High	135	16	88%
ED	33	19	43%
LD	91	18	80%
OHI	11	7	36%
ASD	0	0	0%
Grand Total	339	46	87%

Note. Totals are calculated by adding all students assigned to AB classes in the district. Grand total is all students summed on all AB classes across school level.

As can be seen in Table 2, the total number of students placed in AB classes decreased by 87%. This figure represented a decrease at each of the three school levels, with middle school numbers decreasing the most. The percentage decrease was less for elementary schools as compared to the high school and middle school levels. In summary, enrollment in AB classes at the elementary school level decreased by 54%, at the middle school by 91% and at the high school by 88%.

The numbers for the LD group decreased the most across all age groups (HS = 80%, MS = 100%, ES = 100%). ED enrollment in AB classes decreased by 43% at the high school level,

66% at the middle school level and 36% at the elementary level. The placement of ADHD students in AB classes decreased by 36% at the high school level and by 100% at both the middle school and elementary levels. The policy of placing ASD students in AB classrooms was eliminated altogether.

Table 3

Number of Self-Contained Classes for Spring Branch ISD during years of CRLS Operation

Year	Elementary School Classes	Middle School Classes	High School Classes
00-01	6	9	8
01-02	6	9	8
02-03	6	9	8
03-04	6	9	8
04-05	5	6	5
05-06	5	6	5
06-07	5	5	4

Because of the dramatic decreases in the numbers of students being educated in self-contained AB classes over this seven year time period, the district closed AB classes at all levels. At the high school level, four classes were closed and at the middle school level, five classes were closed. This figure represents a 37% decrease at the secondary level. The district was also able to close one class at the elementary level.

Synthesis

Research on the effectiveness of level systems has been lacking. To date, school systems have implemented this type educational programming without evidence that attests to its effectiveness. It is encouraging to learn from these preliminary data that the CRLS model is effective in decreasing the number of students with ED, ASD, LD, and ADHD being educated in self-contained behavioral classes. Due to the CRLS model, the district became more aware of the needs of these students, the most appropriate educational environments for meeting their needs and the criteria for determining which students can benefit most from restrictive class placements. There is no longer an assumption in the district that ED, ASD, LD and ADHD automatically equate with AB class placement

From 2000 to 2006, the number of students with LD placed in AB classes decreased dramatically. This is encouraging since the LD population has academic needs far outweighing behavioral needs, and in most cases, the academic problems drive the behavioral problems. This finding can be attributed to several factors. First, the CRLS model prepares teachers to meet the needs of many of these students in the general education setting to start with. Second, it provides a four step, structured pre-referral intervention plan that supports teachers who can't cope with student behavior. They are able to obtain immediate assistance in developing a BIP and planning intervention assistance strategies. Previously, teachers had to refer students with LD and concomitant behavior problems for special education placement to obtain assistance. At this point the student was usually removed from the general education classroom. Now, with the assistance of a BIP and appropriate consultative support, teachers can effectively manage many of these students in general education classes.

This same approach also reduced the placement of many students with ADHD in AB classes. At this point only the most severe cases of students with ADHD are paced in AB classes and this is occurring only at the high school level. An examination of the individual cases of ADHD in these classes indicated that in each case the placement was based on safety concerns. The placement of ASD students in AB classes was completely eliminated. Most of these students were placed in general education classes at the elementary level. If special class placement was required at the secondary level, these students are placed in self-contained classes for students with autism, where specialized academic and behavioral programming can target their highly unique and individualized educational needs.

One interesting and encouraging finding of this study was the reduction of middle and high school students with ED who were placed in AB classes. The number of ED students in AB classes at the middle school level was reduced by 66%. At the high school numbers were reduced by 43%. This was particularly impressive because the incidence of ED tends to increase as students age (U.S. Department of Education, 2001), and because level systems have been criticized for their failure to reintegrate students into more normalized environments (Ferrell, 1997). With the CRLS model, when it is determined that the least restrictive educational alternative for a student with ED is the AB class, the CRLS model offers a highly structured, therapeutic training sequence for equipping them with the required repertoire of pro-social and pro-academic skills. They can then be systematically and successfully reintegrated into more normalized environments.

After seven years of utilizing the CRLS model, the district was able to close one AB class at the elementary level, four AB classes at the middle school level and four AB classes at the high school level, thus allowing much more inclusive educational programming for a vast majority of students with behavior disorders, regardless of their diagnosis. Providing effective programming for these students in less restrictive venues is not only cost effective for districts, but it also enables them to demonstrate compliance with NCLB (2002) and IDEA (2004). Financially, the closing of the AB classes enabled the district to better allocate funds for the special education department.

It was noted that the decrease in the number of students served at various levels was disproportionate to the reduction in the number of AB classes reduced at the different levels. This disparity was greatest at the elementary level. The number of elementary students served in AB class was reduced by more than half, yet the number of classrooms staffed for the purpose of serving this population was reduced only from six to five. This disparity is explained by the fact that elementary campuses are considerably more numerous than those at the secondary levels, and, therefore, more AB classes are required to serve neighborhood schools. Another factor is that presently only the most severe elementary students with ED are placed in AB classes. By necessity, these classes require a lower student teacher ratio.

It should also be noted that the data collected from the 2005-2006 school year are inflated due to the Hurricane Katrina crisis. The district received many student evacuees from New Orleans, who were identified by their home districts as being ED. When they arrived, they were,

therefore placed in self-contained, special education classrooms from the elementary through the high school levels. Had it not been for this crisis, the numbers for the 2005-2006 school year would have been lower.

Implications for Future Research

While the initial program outcomes reported here are encouraging, more research is needed to examine the outcomes of CRLS models that are implemented in other school districts that may have different staffing patterns and demographic characteristics. Also, empirical research is needed to examine which aspects of the program are most effective in producing overall program results. Also, in light of the discouraging demographic data reported for this group during their post secondary years, it is important to know the long term consequences of various educational programming models. The existence of such research is a prerequisite to effective and meaningful evaluations of interventions within the school system. More effective interventions and support systems allows for better programming and placement for students with a wide range of behavioral issues.

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