



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 3.4  
IJAR 2015; 1(4): 24-29  
www.allresearchjournal.com  
Received: 13-12-2014  
Accepted: 15-01-2015

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## Classroom interventions for elementary school children with EBD: A brief review

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### Abstract

Behavioral problems not only affect those who display them, but the other students and teacher as well. Left untreated the students with behavior problems are more likely to result in long-term negative outcomes such as learning difficulties, substance abuse, criminality, and mental health issues. Fortunately, there are risk factors that can be identified individually and children can begin treatment. Therefore, treatment need to be chosen based upon individual needs of the school, classroom, or individual student and be cost effective. Some of the evidenced based treatments this review investigated were the Good Behavior Game, token economies, positive behavioral supports, daily behavior report cards, and contingency contracting. The overall evidence indicated each of these interventions was highly successful across a wide range of populations and classroom settings.

**Keywords:** classroom, intervention, elementary students, emotional behavioral disorders, token economies, contingency contracting, good behavior game

### Introduction

Behavior problems of children with Emotional or Behavioral Disorders (EBD) can cause disruption in the general education classroom for both the teacher and students <sup>[1]</sup>. As such, student achievement is can be negatively affected and will most likely lead to a reduction in time engaged in academic endeavors and on-task behavior. The need for teacher friendly, effective, and enduring interventions to address such behaviors is apparent <sup>[2]</sup>. How we meet social task demands we face in our life is indicative of our psychological well being and success earlier in life should mean success later in life. Similarly, it may be also associated with academic outcomes and success in life in general <sup>[3]</sup>. In addition, because children spend so much time at school it makes sense to implement preventative measures and there is research to support that social-emotional skills have the potential to promote engagement in learning, long-term academic success, and a reduction in behavioral risk factor effects are a result <sup>[4]</sup>. For example, behavioral interventions implemented in classrooms are an effective strategy on classroom management which is important to students early on in their academic careers and will have lasting effects on students through middle school <sup>[5]</sup>. Further, behavioral interventions have also been shown to increase the likelihood of high school graduation, and college attendance as well as a reduction in special education service use <sup>[6]</sup>. If these academic problems are not addressed, they may lead to health and social problems. Research has shown that learning problems predict mental health problems, anxiety, and depression <sup>[6]</sup>. It should not be too surprising that studies have found that children with disruptive behavior are identified by their peers early on and are often rejected by their peers who do not display the same behaviors. As a result, there are fewer chances for disruptive children to find peers who model the desired behavior. In turn, they are more likely to seek out those children with the same deviant behavior <sup>[7]</sup>.

Many behavior problems in childhood are associated with negative outcomes in adolescence and adulthood. Some of these outcomes include difficulties in school, antisocial behavior, substance abuse, and criminality. As a result, the need for positive behavioral intervention focused on preventing and or reducing disruptive behavior is paramount with young children <sup>[6, 7]</sup>. It is also important to note, the cost associated with implementing interventions.

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However, it has been found that with just reduced tobacco use alone it returned \$25.92 for each dollar spent on implementation. Therefore, there should be additional returns when considering the reduction in the use of special education, mental health, and juvenile justice services related to this seemingly inconsequential intervention [6].

Fortunately, research has identified many of the predictive risk factors that allow us to address these issues. There are three main risk factors from which all others can be derived. First, is the family environment, such as poor parenting skills, parental substance abuse and mental health [7, 8], parent-child relationship, single parent homes, birth to teenage mothers, and child abuse and or neglect [5, 8]. Second, is the quality of environmental interactions a child has, such as interactions and with parent, teachers, peers, and friends [4]. Finally, is the global environment, such as poverty, neighborhood characteristics, and home-school relationship [4, 8].

As a result of various legislative measures like NCLB, schools are looking for low cost effective tools to address the behavioral and academic needs of their students. This is especially difficult in highly urbanized areas where schools are fighting against poverty, student mobility, difficulties hiring teachers, and dealing with classroom discipline problems [4, 5]. In order to get the most for their money, schools should implement a program school-wide. Ideally, it would be expanded to district and state levels so as to decrease the cost. Also, theory and data should be used in trying to find an intervention that works for their school. Understanding one's school along with the processes to develop competencies that could serve as protective factors is important. Finally, the school and or teacher will want to figure out an integrated intervention that maximizes multiple child outcomes. This is because integrated approaches may have a synergistic effect. Therefore, it may be more efficient and reduce the need for more expensive and intensive interventions [4].

It is also crucial for the techniques used to be implemented properly. When implemented incorrectly it can lead to a situation where both teacher and student are negatively reinforced due to the student's subsequent tantrum and the teacher's withdrawal of their demand [2]. As a result, teacher preparation is the key to reducing attrition rates. Plus, it is imperative to provide teachers with evidence based easy-to-implement interventions to decrease problem behaviors [5]. The purpose of this brief literature review is to investigate the different types of classroom interventions for students, especially those with emotional and or behavioral disorders.

### Good Behavior Game

Research has shown that the Good Behavior Game (GBG) is an effective behavioral intervention [3, 9]. Typically, students are divided up into teams. First, they are taught the rules of the game. Then they are told when the game starts and ends and reminded of the rules. If they are displaying appropriate behaviors, then the team may earn points. Once the game is over, the teacher announces which team or teams won [3, 9, 7, 10].

A large number of studies [3, 11, 5, 7] have found that the Good Behavior Game (GBG) works in multiple classroom settings, various student populations, and countries. In some studies it has resulted in a preventative effect [7]. Hence, it showed a decrease in disruptive behaviors,

attention deficit hyperactivity, and conduct disorders [7] and an increase in on-task behaviors [5]. While this has been used at the class level as a universal intervention, it can be focused on individuals with disruptive behavior. However, those with high levels of disruptive behavior should be treated in combination with more intensive strategies and or BIP, where applicable [7].

It has been reported by teachers that the GBG is an effective behavior management tool [7]. Similarly, children enjoyed the game, put in great effort to win every session, and liked having input on rewards [7]. Furthermore, it seems the GBG has a lasting effect on students and this has been seen in higher scores on standardized tests, reduced use of special educational services, higher rates of high school graduation, and higher rates of attending college, which in turn should mean higher rates of employment, and most likely a reduced risk for mental and behavior health issues [6].

### Token Economy

Token economies are another evidence-based intervention many teachers use in their classrooms [12, 13, 14]. First, the teacher determines what will be used as tokens. Second, the teacher determines the target behaviors. Afterward, the teacher will discuss the target behaviors and the conditions on which to disperse the tokens with their students. Next, the teacher determines the value of the tokens and when they can be used to receive secondary reinforcers. Then, the teacher determines what the secondary reinforcers will be and may take into consideration input of students. Finally, the teacher will change the reinforcement schedules and or fade out the secondary reinforcers.

This intervention has been proven to work across all ages and settings [15]. The main target behaviors for most token economies are talking out, out-of-seat time [15, 16], and physical contact with other students [16]. However, it may have an effect on all undesirable behaviors. Higgins, Williams, and McLaughlin [15] found that target behaviors immediately decreased and maintained or continued to drop in association with this intervention. Similarly, in Saigh & Khan's [16] study there was evidence this intervention worked with removal of contingencies. Therefore, it was assumed that some children can learn to reduce inappropriate behaviors without the use of external rewards [16]. However, the data on this assumption is not very impressive [17].

Token economies have been found to be effective and accepted interventions. This is an intervention most teachers have used or do use in some fashion. Most of the time, it is modified so as to make it easy for both the students understand and the teacher to implement effectively. In addition, it was liked and accepted by students. Coupled with the results Higgins *et al.* [15] found, that their students liked the idea of the token system to earn more privileges like computer time, free time, going to the school library.

In needing to reduce disruptive behavior quickly, a token economy may be preferred over daily report cards or self-monitoring. On top of that, the whole class could benefit from a token system and with modification the implementation time would be minimal. Finally, students should be taught to monitor themselves as part of the token system and then fade from adult/child matching to student/student monitoring without matching [15].

## Positive Behavioral Support

### Class-wide

A class-wide positive behavioral support intervention is intended to address everyone in the class and it targets disruptive behavior<sup>[6]</sup>. In Bradshaw et al.'s research, they implemented the Good Behavior Game in combination with a family intervention program called Family-School Partnership (FSP). As previously noted, the GBG is an effective intervention at the class level. Therefore, only the FSP will be discussed. The FSP designed to improve collaboration with the parents, teachers, and other school professionals, and enhancing parents' teaching and behavior management skills<sup>[6]</sup>. The FSP contained 3 parts. 1) Training for staff and faculty in parent-school communication and partnership building. 2) Weekly home-school learning and communication activities. 3) Nine workshops for parents led by a teacher and school psychologist or social worker for the first quarter and 2 more, 1 in spring, and winter<sup>[6]</sup>. In a study done in Baltimore where data was collected after 1<sup>st</sup>, 2<sup>nd</sup>, 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grades, it seemed to improve achievement and behavior in general. In addition, in the latter grades there was a decrease in the likelihood of drug and tobacco use. However, in general, it didn't seem to work as well as expected. For example, it was not effective with problems like conduct disorder, use of mental health services, social and participatory issues, and illegal drug use<sup>[6]</sup>.

Class-wide Positive Behavioral Supports (PBS) often targets every student in the school. It could help those with mild to moderate problems. Then for those students who are on the moderate to severe spectrum, there would be peer models that would help them see what appropriate behavior looks like. With a class-wide intervention, expectations are clear. It would seem to be a just system as the rules and expectations would apply equally to all. What's more, the students may have the opportunity to buy into the system more should the teacher allow the students to contribute to the making of the classroom rules. Therefore, it could be assumed that students would be open and accepting to this system.

Since expectations should be clear and apply to all students, it wouldn't single anyone out. As such, it may help to those who with special needs not to feel singled out. Additionally, the non-disruptive students could serve as models of the appropriate behaviors associated with the intervention.

### School-wide

A school-wide positive behavioral support intervention is intended to attend to the needs of the entire school population and targets disruptive behavior. Domitrovich et al.'s research focused on the GBG in combination as an integrated program with Promoting Alternative Thinking Strategies (PATHS) intervention. Both interventions complemented each other to foster a positive learning environment, materials to be sent home to explain, encouraged the use of the techniques at home, and visual cues. However, because PAX-GBG is a modified version of the GBG and was discussed earlier only PATHS will be discussed. Since, the school was looking for an integrated intervention that would take the best of both PATHS and PAX-GBG, it was decided a blended version would have overlapping components and combination of unique elements to maximize the mechanisms of change that

underline each model<sup>[4]</sup>. PATHS is a teacher-taught social-emotional curriculum for students in preschool and elementary school. PATHS has four skill domains. 1) Emotional understanding and emotional expression. 2) Prosocial friendship skills. 3) Self-control/emotion regulations. 4) Problem-solving skills. It includes lessons on emotions, friendships, self-control and problem solving. It includes strategies that can be used throughout the day and other staff to assist with generalization.

The school-wide intervention shows students what is expected and is clear at the highest level. That being said, it would be safe to say that any teacher could walk into another class and have the basic expectations covered. Then, classroom interventions would be supplemental and easier to implement because the children would already have a foundation that everyone is familiar with. Plus, new teachers with few classroom management skills may find this to be a helpful intervention to model their own classroom intervention that could address more specific and or individual targets in their classroom. With regards to how it was liked and accepted by students, it would be fair to say that it should be similar to that of the class-wide intervention. Finally, a vertical approach operates on multiple levels and is designed to impact those for various groups and may be exposed repeatedly to intervention content, but all students are exposed at the universal level<sup>[4]</sup>.

### Daily Behavior Report Card

Daily Behavior Report Cards (BRC) is another evidence-based intervention. This intervention is easy to implement and often can be implemented with some training<sup>[18, 19]</sup>. Most BRC include a specific behavior, a rating for the behavior, sharing the information with the student and teacher and school and home on a daily basis, which fosters positive relationships, and using the data as part of an intervention or to monitor behavior<sup>[20, 18, 19]</sup>. Factors to consider when creating a BRC are how the student or teacher rates their behavior. These ratings can be whole class, group, or individual. The other items that can be manipulated are the type of setting (general or special education classroom, the home, in the school office, or the community etc.) where consequences are delivered. In addition, the type of consequences (edibles, activities, free time, computer access, etc.) employed can be important<sup>[21]</sup>. BRCs have proved to be a useful tool in a wide variety of ages, settings, and populations<sup>[21, 18, 19, 22]</sup>. Daily report cards can be employed to improve a wide range of academic and social behaviors<sup>[23]</sup>. They have been quite successful with students with ADHD as they can target disruptive and social behaviors such as impulse control and talking out or academically associated behaviors such as inattention, activity modulation, completing work accurately, and following classroom rules. This should in turn improve academic success and motivation for such students<sup>[24]</sup>.

Students showed improvement in classroom behavior, were more academically productive and successful, more likely to meet IEP goals, and normalization of functioning occurred in some measures. Therefore, teacher feedback from the BRC may act as an antecedent for future appropriate behavior, better communication and relationships between parent-teacher. However, because the BRC doesn't seem to address academic achievement, other

evidenced-based interventions targeting this type of development is necessary (Fabiano *et al.* 2010) <sup>[19]</sup>.

It would appear that DRC are not only liked, but also accepted. They are currently being used by teachers and are considered an accepted tool <sup>[18, 19]</sup>. The reason for this is most teachers have used them at some point, like their flexibility, used them as an intervention to communicate with the student, as well as home, regarding their behavior, and are maintained fairly easily <sup>[18, 19]</sup>. With constant and immediate feedback from the teacher, knowing what is expected, and how to reach the goals <sup>[19]</sup>, the student should feel more secure, know what to expect, and confidently move forward with meeting the goals. Therefore, it could be safe to assume most students would be accepting of this type of intervention. Based on the findings from the literature <sup>[18, 23]</sup> educators should use their recommendations for use, which include using it to increase positive behaviors. In addition, praise should be paired with the use of DRC.

### Contingency Contracting

A more academically focused intervention for children with behavioral issues, is employing contingency contracts <sup>[17]</sup>. There are two types of goals students set for themselves within these contracts, learning and performance. Performance is based upon an outside observer whereas learning goals don't and have more intrinsic value to the student. When implementing contingency contracting, students who choose learning goals will persist, try new strategies, and don't view failure as a personal reflection. If goals were not met, then students could adjust their goals as needed. Therefore, these contracts help create learning and performance goals that place emphasis on the student's individual needs. As such, success is then based upon their goals and it encourages the student to become an active participant in their education <sup>[25]</sup>.

It has been found that students from elementary school <sup>[25]</sup>, middle school <sup>[26]</sup> to college students <sup>[27]</sup>. Contingency contracting has been have used to improve the social and academic performance for a wide range of students <sup>[25, 27]</sup>. Students using contingency contracts set the most learning and performance goals in comparison to the token economy and control groups. Furthermore, contingency contracting led to adopting learning goals over performance goals because the emphasis was on individual gains, improvement, and progress <sup>[25]</sup>. In addition, in college students it was found that using a pacing contingency for a portion of the course helps to prepare the students to better manage their time and organize their studying behaviors may be beneficial <sup>[27]</sup>.

The findings seem to support the idea that using a contingency contract is beneficial to college or university students. Brook and Ruthven <sup>[27]</sup> found that a pacing contingency for a portion of the course helps to prepare the students to better manage their time and organize their studying behaviors. With fewer retakes, higher performance on the final exam, and better grades <sup>[27]</sup> one could hope that the instructor would be pleased with this intervention and use it where possible.

Similarly, when focusing on personal progress, then failure is not a threat. Thereby, creating a situation where personal pride and satisfaction could be cultivated. Plus, in an environment like this it is likely a student will become confident in their abilities, increase task motivation, and opt

to persevere, rather than shrink from a challenging task <sup>[25]</sup>. If this is the case, then it could be assumed that students would like contingency contracting as the value of their education becomes intrinsic and a feeling of confidence and accomplishment is a great reinforcer.

It can be used as a universal intervention, but each contract could be tailored to meet the needs of the individual student. Depending on how it was implemented, it wouldn't single anyone out, so it may be helpful to those who are special needs. In addition, non-disruptive students would serve to model the appropriate behaviors associated with the intervention. However, if it was done as a universal intervention, it may take more time than necessary. Therefore, making up contracts as needed may be a more effective use of time.

### Conclusions and Recommendations

Behavioral interventions are important. They have an impact on the long-term futures of students. Consequently, it is crucial to find easy to implement interventions that teachers find acceptable. But ultimately, it is imperative to find the right intervention for child and the classroom.

Interventions have far-reaching effects and are important to students. They have a positive impact on issues like youth development, preventing substance abuse, aggressive and disruptive behavior problems, and mental health issues <sup>[4]</sup>. Likewise, they can be associated with learning goals that result in higher motivation and achievement outcomes. Therefore, a teacher's instruction methodology and classroom management techniques may influence the students' perceptions of the goals set forth <sup>[25]</sup>. In addition, while there are multimodal interventions, that may be limited as they don't necessarily target the home-school connection, parent involvement, or parent-teacher relationship. As a result, it is hard for educators to address things like parent/family involvement when the family may not feel welcome at school or able to properly support their child's education. Therefore, intervention programs for students, especially with ADHD, need to focus on the family and their relationship with the school in order to be successful <sup>[24, 8]</sup>.

Considering that teachers are crucial, it is more important for the interventions that are being considered to be easy to implement and accepted by them. This is because research has shown that acceptability may affect the likelihood a teacher will use and correctly implement the intervention. Therefore, it is essential to understand the teachers' opinions about interventions <sup>[18]</sup>. In light of this, proper preparation is critical for effective implementation. Without it, the situation may only be corrected temporarily <sup>[15]</sup>. Therefore, streamlining the process is important so it can be done quickly and easily with high-quality implementation <sup>[4]</sup>.

When choosing an intervention, it is foremost to choose an option that works for the school or individual classrooms and are the most effective at the use of resources such as money, materials, and personnel. In general, when deciding on a school-wide intervention, there should be a clear theory about the school's needs and an evaluation of each intervention. Then decide which parts and pieces work will work for the school or class the best <sup>[4]</sup>. Therefore, having a district-wide intervention that is trickled down may prove to be more cost effective, help with effective use of resources (supports, training, materials, etc.), and provide

consistency for students, staff, faculty, and parents especially with student mobility. Likewise, having a school-wide, class-wide, and individual intervention tiers may prove to be helpful and can extend the reach of the school into the home.

The future of intervention is clear. There is a need for models that will span the scope of public education, which will not only work at the elementary level, but also at the middle school and through high school. Along with that, there will be a need to research those future interventions. Finally, to maximize these interventions, there will be a need for increased collaboration between program developers, researchers, and practitioners to develop, implement, and evaluate them.

### Acknowledgements

Preparation of this manuscript was in fulfillment of the requirements for Masters of Education in Special Education in the Masters in Initial Teaching (MIT) from Gonzaga University. Requests for reprints should be addressed to Ruth Perkins, Department of Special Education, Gonzaga University, Spokane, WA 99258-0025 or via mail at hperkins@zagmail.gonzaga.edu

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