Attention Deficit Hyperactivity Disorder (ADHD) is a common behavioral disorder in children. It is characterized by motor hyperactivity, impulsivity and inattention. Individuals with ADHD display difficulties in social behavior and academic performance. While specific symptoms of ADHD vary by age and individual, common traits include increased motor activity, disruptive behavior, academic difficulties, aggressive behavior, clumsiness, impulsiveness, difficulty in sustaining attention, difficulty in remaining seated when required to, and risk taking behavior (Kulkarni, 2015). In the classroom, these behaviors can interrupt not only the individual with ADHD, but also the learning environment of other children. Teachers of students with ADHD can implement a variety of evidence based practices in the classroom to address the behavior and academic needs of this population of students. These practices include behavior contracts, token economy systems, maximum structure, classroom meetings, and self monitoring. Descriptions, directions for implementation, evaluation, as well as required materials for these practices will be detailed.

Behavior Contracting

A behavior contract is established between a teacher, a parent/guardian, and a student. The expectations of the contract should be clearly communicated to the student involved and should explicitly describe the desired behavior. The purpose of the contract is to provide consistent expectations and consequences for students in order to create a stable and positive learning environment. The contracts may be written or oral, however, it seems most efficient and formal when the contract is written. Behavior contracts may be implemented for any students with behavior concerns in the classroom in addition to students with ADHD.

When using behavior contracts with students with ADHD, some additional considerations may be needed. Students with ADHD demonstrate behaviors unique to this disorder, such as impulsivity and hyperactivity, that their peers do not. Some students with ADHD may not be able to comprehend the premise of the contract; that it is an agreement between both parties. The contract will require appropriate behavior by the student in return for some type of positive reinforcement from the teacher. Students with ADHD may need it right away and more frequently wheres those without ADHD may be better able to wait for their positive reinforcement. The terms of the contract must be based on individual needs and behaviors regardless of whether or not the student has ADHD.

Directions

Parker (2005) provides guidance on how to implement behavior contracts in the classroom. In order to implement an efficient behavior contract, the students, their families, and all staff involved must understand the terms of the contract. The terms of the contract must be described to the student in ways that they student can understand. Parker (2005), suggests describing the contract to younger children as a game where the child can win things from the teacher. For older children, the teacher could relate the behavior contract to contract in business, social relationships, and contracts between countries. The students must also know the reason behind the contract. The teacher should explain that the contract is being used as a strategy for students to improve their behavior.

Next, target behaviors goals must be identified. These will be the behaviors that the student's contract will focus on and they should be specific. The student should know exactly what he or she needs to do to demonstrate this behavior. This could also be modeled by the teacher or other peers for the student.

The target behaviors goals must be observable and measurable. This also requires that the behaviors be specific. For instance, a target behavior goal cannot be, "Johnny will pay attention in class." This is not specific enough for Johnny. He will not know which class he needs to pay attention in or for how long. This lack of clarity may discourage Johnny from attempting to pay attention because he will not know how he is being evaluated or if his teacher is even noticing. Instead, a target behavior could be, "Johnny will sit in his chair for fifteen minutes during science lectures." This will give the teacher an established time to record Johnny's behavior and will give Johnny clear expectations. It is also a smaller behavior goal that can be built on to include longer periods of time and other classes. Whenever Johnny makes his fifteen-minute mark, the teacher could place a mark on the board, hand him a note, or do something to give him an indication that his behavior was noticed and he will earn his part of the contract; the positive reinforcement.

Fourthly, the positive reinforcement must be determined. It has to be motivating to the student so he or she should be involved in the selection. Rather than giving the students free reign to choose their own reward, provide them with options. These options should be desirable to that individual students and should be activity-based rather than food-based. For instance, rewards of computer time are preferred to rewards of a candy bar. Students with ADHD may need these rewards more frequently than students without ADHD. Therefore, this should be taken into consideration when providing reward options for the student.

Finally, the terms of the contract should be written down and signed by the teacher, parent/guardian, and the teacher. It should be consistently reviewed for consistency, progress measurement, and instructional considerations (Parker, 2005).

Evaluation

To evaluate the effectiveness of the behavior contract, the teacher should collect data based on the target behavior goals. The goals should be observable and measurable. The teacher will need to first observe the student to create baseline data for his or her behavior. The baseline data indicates the state of the child's current behavior; frequency, rate, duration, latency, etc. Once the baseline data is established, the teacher can begin to track progress.

The teacher should collect progress for at least three weeks in order to assess the efficiency of the behavior contract. If the child is showing growth and improvement, the behavior contract should be continued. However, if there has not been measurable substantial growth, the behavior contract may need to modified.

Materials Needed
See "Weekly Data" Data Collection Chart
See Sample Behavior Contract (attached)
See Sample Homework Contract (attached)

(Example)WEEKLY DATA

В.

NAME:	WEEK OF:	YEAR:
TARGET BEHAVIORS:	INTERVENTIONS:	
1.	A.	

1. 2. 3. C.

TIME	MONDAI	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	MONDAY DATE:	DATE:	DATE:	DATE:	DATE:

http://www.resa.net/curriculum/positivebehavior/

Token Economy Strategy

The Token Economy Strategy uses small objects as an immediate reward when students display appropriate behaviors. When students earn so many small objects, they receive a larger reward. Similar to the behavior contract, target behaviors must be identified for the token economy system. Each time the student performs the requested behavior, he or she earns a token. The tokens are used to motivate students by praising their positive behavior as it happens. The token economy system uses a hierarchy of rewards to encourage student behavior. This teaches the student to be patient and persevere to earns the larger reward.

Directions

Parker (2005) also describes how to implement a token economy system. To begin using a token economy system, the teacher and student must decide on target behaviors for the student to work on. There should be two-five target behaviors and these will drive the system. The behaviors should be identified and explained to the student as behaviors that he or she will be working on. Once the behaviors have been identified, the tokens should be selected. The tokens do not have to have value to the student because they represent steps towards a larger incentive. The tokens could be stickers on a card, poker chips, pom-poms in a cup, stamps, etc.

Once the behaviors have been identified and the tokens selected, the system and its goals should be discussed with the student. The behaviors should be written on a daily or weekly log for data collection and should be positively phrased. Avoid using negative language for behavior goals such as, "Johnny will not shout out during class." Rather, the goal should be phrased as, "Johnny will raise his hand to share during class." This describes the behavior that is desirable and while using positive language.

Parker (2005) recommends having a token value for each behavior. "Simple behaviors, or those that are frequently demonstrated by the student, should have a smaller token value than behaviors that are more complicated or infrequently demonstrated by the student." This motivates the student to improve the behavior that is more challenging as he or she will receive larger token value. Another consideration when establishing a token economy system is whether or not to include consequences within the system. For example, a negative behavior could be monitored as well and will remove one of the tokens earned. If this is implemented in the system, the teacher would have to be careful that the entire system is not negatively oriented.

Next, the teacher and student need to decide on rewards that will be appropriate and motivating. As with the behavior contract, the rewards should be individually based and should be centered on activities or objects that are of value to the student. The rewards should be given at a designated time that is established by the system and clearly communicated to the student. For students with ADHD, the tokens may need to be given more frequently that for those without ADHD.

In the beginning of the implementation period, tokens should be given frequently and consistently to emphasize the system. The teacher should use the daily or weekly log to track behavior progress. After several weeks, the teacher should evaluate the system's effectiveness and discuss it with the student. It will be important for the teacher to praise the student for positive improvement of behaviors as well as encourage the student to persevere in areas that are still a challenge. The teacher may make adjustments to the system including prompts or supports to help the child meet the behavior goals.

Evaluation

The teacher should evaluate the effectiveness of this strategy by frequently reviewing the daily or weekly logs. This will indicate how often the student is meeting his or her behavior goals. The teacher should document in a separate log the days in which the rewards are met. Once the behavior is being displayed more frequently and the rewards are occurring more often, the teacher can increase the expectation levels for the student. If the rewards are not being met and behavior is not improving towards meeting the reward, the system may need revision.

Materials Needed
Sample Token Economy Log (attached)

Maximum Structure

Another strategy to develop effective classroom management is to have maximum structure within the classroom. This is beneficial for both students with ADHD and without. Having predictability in the classroom provides students with routines, security, and structure. Teachers should develop maximum structure within the activities of the school day as well as in the physical layout of the classroom.

Directions

To implement maximum structure in the classroom, teachers should establish predictable routines. There should be routines of classroom activities and procedures. This includes beginning of the day activities, class sequence, lesson planning and structure, end of the day activities, transitions, etc. Teacher routines should also be a predictable element of the classroom. An example of a teacher routine is the design of a lesson plan. Students should know that when a teacher is giving a lesson, their is a format this he or she is following. For example, the teacher may begin with an introduction, then go to direct instruction, followed by guided practice, followed by independent practice, followed by a closure. The teacher should keep this design consistent throughout the school year so that students can begin to anticipate activities. When students are aware of the structure of the lessons, their level of comfort may increase and levels of anxiety may decrease. Student routines should also be predictable. For instance, students should know that in the beginning of the day, they are expected to unpack their belongings, place homework in the designated folder. make their lunch selection, and take out a book to silent read. The expectations of the students must be clearly communicated and reiterated so that students learn these routines.

Next, teachers should have a predictable classroom environment. The classroom should have designated areas for teacher space, small group learning areas, whole-group learning areas, reading areas, and/or free choice areas. Students should know exactly where in the classroom they need to be for a given activity. In addition, student work spaces (i.e. desks, tables) should be arranged in a clutter free formation. Students should have enough space in the classroom to walk around comfortably. Another consideration, is that the students should be arranged in formations that enable the teacher to easily monitor. There should not be areas of the classroom that students are working in that the teacher cannot see.

For students with ADHD, maximum structure allows teachers to communicate their behavior and performance expectations for students. Teachers must also be mindful of

consistency. This is a critical element in order to have maximum structure. Rules, praise, and consequences must be consistent in order for students to develop and maintain predictability. Parker (1994) recommends routines in the home environment as well, especially for students with ADHD. "Routines are important at home as well. Parents should work with their child to establish appropriate student habits including routines for doing homework, organizing school materials, getting ready for school in the morning, etc." (Parker, H.1994).

Evaluation

To evaluate the effectiveness of the structured classroom, teachers could conduct a self assessment and/or use an action plan. Simonsen & Fairbanks (n.d.) have recommended templates for self assessment:

I maximized structure and predictability in my classroom				
a) I explicitly taught and followed predictable routines.	Yes No			
b) I arranged my room to minimize crowding and distraction.	Yes No			

http://www.apbs.org/Archives/Conferences/fourthconference/Files/Simonsen_fairbanks.pdf

These are examples of questions the teacher can use to assess whether he or she created maximized structure. Simonsen & Fairbanks (n.d.) also recommend an action plan for self-evaluation. Here is an example of their recommended action plan:

Day	Current Level of Performance	Enhancement/Maintenance Strategies
1		
2		

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The action plans should include routines that the teacher would like to set in place. For instance, the morning routine, packing up routine, or collection of homework. The teacher will observe how the students are currently performing these routines and then generate ideas for improvement.

Classroom Meetings

Classroom meetings are another suggested strategy for classroom management. The purpose of these meetings is to encourage the development of communication and problem solving skills. These skills are important for all students; not just those with ADHD. Classroom meetings, "establish a nurturing environment that supports and rewards children for using these skills in the classroom setting...and gives students the tools to be independent problem

solvers" (Frey & Hallie, 2001). Problem solving and communication skills can help students with and without ADHD with peer relationships and conflicts. It can also build a sense of community in the classroom.

Directions

Classroom meetings are a great strategy to teach students responsibility. Barabra McEwan, Paul Gathecoal, and Virginia Nimmo (1997) are noted in Marzano, Pickering, & Marzano (2003) and have created guidelines for implementing class meetings:

- 1. First, determine who can call a class meeting (teachers only or students) and when it should be held during the school day so as it is not too disruptive.
- 2. The students and teachers should be arranged so that they can see the faces of all other class members.
- 3. Establish expectations and rules for the meetings. For example:
 - a. names will not be used in a class meeting because the purpose of class meetings is to address issues, not people.
 - b. the meeting will stay on topic.
 - c. Students have the right not to participate in class meetings.
- 4. Encourage or require students to use journals in connection with the class meetings. (Marzano, Pickering, & Marzano, 2003)

Journals are suggested so that students can keep track of ideas that they have learned in terms of behavior. The teacher could create journal prompts based off of the class meetings. For instance, a journal topic could be to take an issue that was discussed during the meeting, summarize it along with the resolution that was determined. Then the students could reflect on why that resolution was chosen and whether they agree with it. This will also allow students to get their thoughts on paper. This could be especially beneficial for students who are shy and less likely to contribute to whole-group discussions. These students could still "voice" their opinion through journaling.

Evaluation

To evaluate the effectiveness of classroom meetings, teachers can frequently check their students' journal entries. The journal entries will reflect the content of the meeting as well as the students' reflection and perception of the the meeting. Teachers can monitor journal entries to identify students that may have social challenges and to gauge how students are being effected by the meetings. They can also use their own observation of peer conflicts and resolutions to evaluate the benefits of the classroom meetings.

Self Monitoring

Self-monitoring is another classroom management strategy that also teaches individual responsibility. In this strategy, students are taught how to monitor and record their own behavior. Rather than relying on others to call out misbehavior, students must be their own enforcer. This teaches self-awareness and responsibility of one's own actions. Self-monitoring is also beneficial for the teacher because it requires very little teacher attention once the student has learned how to monitor their own behavior (Webber, McCall, & Coleman, 1993). The results of the behavior

logs could be compared to standardized behavior expectations or to baseline data of the individual's current behavior.

Directions

To implement a system of self-monitoring, the teacher must discuss the behavior goals with the student. The student must have target behaviors that he or she is seeking to improve. The behaviors must be clear to the student and written in a log for him or her to track. The teacher must also decide whether to use standardized behavior data or to collect baseline data of the students' current functioning. This will be the starting point and will be used to determine progress. Self-monitoring must be used with students who are at an appropriate maturity level and who have an awareness of their own behavior. The student's behavior log should be easily accessible without being a distraction.

A behavior log should be kept by the student and should not interfere with his or her work space. There is flexibility with this strategy and individual needs and preferences should be considered. One example of a log could be a written document with specific check-in times. Every 10 minutes the student must monitor their behavior and check off whether or not they were paying attention. Another example is a system with a sensory indicator. Parker (1994) describes her 1990 program, "The Listen, Look, and Think Program." With this program, an endless cassette tape is played that beeps every *x* number of minutes. When the tape beeps, the student records on a form whether or not he or she was paying attention at that moment. This helps students monitor their own behavior with an auditory signal. It is the decision of the student and teacher what method of tracking the student would like to use for this system.

Evaluation

To evaluate the efficiency of this system, the student and teacher should review the logs frequently. Using the starting point (either standardized behavior norms or baseline data of the students' behavior), the teacher should assess whether the student has made growth.

Materials:

Example of Student Self-Monitoring: Behavior Rating Scale Example of Student Self-Monitoring: Behavior Checklist Example of Student Self-Monitoring: Frequency Count

(Example) Student Self-Monitoring: Behavior Rating Scale

This self-rating scale allows you to rate how well you carry out selected behaviors.

How to Use This Behavior Rating Scale. This scale is to be used to rate your selected behaviors at the end of a predetermined period (e.g., after independent work; at the end of the school day; at the end of math class.)

How to Set Up the Behavior Rating Scale: Follow these steps to prepare the rating scale:

- -Select Behaviors. In the left column of the table below, write down up to 5 behavior goals that you plan to rate (e.g., stay in seat, complete seatwork, work well with others, participate in the activity, keep workspace clear).
- -Choose a Schedule for Completing the Rating Scale. Decide when you will fill out this self-rating scale (e.g., after independent work; at the end of the school day; at the end of math class; just before lunch and again at school dismissal).

I plan to complete this rating scale on the following schedule:

Behaviors:	1	2	3	4	5
How well	Date	Date	Date	Date	Date
did I	_/_/_	_/_/_	_/_/_	_/_/_	_/_/_
-	Good	Good	Good	Good	Good
	Fair	Fair	Fair	Fair	Fair
	Poor	Poor	Poor	Poor	Poor
-	Good	Good	Good	Good	Good
	Fair	Fair	Fair	Fair	Fair
	Poor	Poor	Poor	Poor	Poor
-	Good	Good	Good	Good	Good
	Fair	Fair	Fair	Fair	Fair
	Poor	Poor	Poor	Poor	Poor
-	Good	Good	Good	Good	Good
	Fair	Fair	Fair	Fair	Fair
	Poor	Poor	Poor	Poor	Poor
-	Good	Good	Good	Good	Good
	Fair	Fair	Fair	Fair	Fair
	Poor	Poor	Poor	Poor	Poor

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(Example) Student Self-Monitoring: Behavior Checklist

Behavior checklists are simple way to 'check off' whether or not you carry out selected behaviors.

How to Use This Behavior Checklist. This behavior checklist can be used before starting an activity to ensure that you are prepared (e.g., before beginning independent work) or after the activity (e.g., at the completion of independent work) to track whether you displayed target behaviors. This behavior checklist form allows you to list up to 6 different behaviors. NOTE: Checklists are an excellent tool at the end of an assignment for you to use to check your work.

How to Set Up the Behavior Checklist: Follow these steps to prepare the checklist:

I plan to complete this behavior checklist on the following schedule:

-List Behaviors to Be Tracked. In the left column of the table below, write down up to 6 behaviors to make up your checklist. Good checklist items are those that can be easily verified as 'done' or 'not done' (e.g., arrived to class on time; brought all work materials to class; avoided chatting with classmates during independent work time).

-Choose a Schedule for Completing the Behavior Checklist. Decide when you will fill out this checklist (e.g., before or after independent work; at the start or end of the school day; before or after math class).

1	ı	8

Behaviors: I engaged in these behaviors	1 Date _/_/_	2 Date _/_/_	3 Date _/_/_	4 Date _/_/_	5 Date _/_/_
-	Yes	Yes	Yes	Yes	Yes
	No	No	No	No	No
-	Yes	Yes	Yes	Yes	Yes
	No	No	No	No	No
-	Yes	Yes	Yes	Yes	Yes
	No	No	No	No	No
-	Yes	Yes	Yes	Yes	Yes
	No	No	No	No	No
-	Yes	Yes	Yes	Yes	Yes
	No	No	No	No	No

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Student Self-Monitoring: Frequency Count

A frequency count is a recording of the number of times that a you engaged in a behavior during a specific timeperiod (e. g., during a class period). Frequency counts can be used to track behaviors that you want to increase or decrease.

How to Use This Frequency-Count Form. With this frequency count form, you record each occurrence of the behavior with a tally-mark ('/'). At the end of the time-period, you add up the tally-marks to get a total sum of behaviors for that observation session.

How to Set Up the Frequency-Count Form: Follow these steps to prepare the frequency-count form:

-Define the Target Frequency-Count Behavior. In the space below, describe the behavior that you will measure using a frequency count. (Here are some examples: "leaving my seat without teacher permission", "completing a math problem", "requesting teacher help", "talking with other students about off-task topics"):

Γarget Behavior to Measure:
-Choose a Schedule for Conducting the Frequency Count. Decide when you will use the frequency-count form to track the target behavior:
plan to conduct the frequency count at the following time(s) and/or during the following activitie(s):

1	Tally Box: Write a mark ('/') in this box each time the target behavior occurs:		Total Behaviors for Session
Date://		^	
2	Tally Box: Write a mark ('/') in this box each time the target behavior occurs:		Total Behaviors for Session
Date://		۸	
3	Tally Box: Write a mark ('/') in this box each time the target behavior occurs:		Total Behaviors for Session
Date://		۸	
4	Tally Box: Write a mark ('/') in this box each time the target behavior occurs:		Total Behaviors for Session
Date://		۸	

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- Frey, A., & Hallie, D. D. (2001). Classroom meetings: A program model. *Children & Schools*, 23(4), 212. Retrieved from http://ezproxy.msu.edu/login?url=http://search.proquest.com/docview/210931607?accountid=12598
- How To: Teach Students to Change Behaviors Through Self-Monitoring. (n.d.). Retrieved July 8, 2015, from https://www.interventioncentral.org/self-management-self-monitoring
- Kulkarni, M. (2015). *Attention deficit hyperactivity disorder*. The Indian Journal of Pediatrics, 82(3), 267-271. doi:10.1007/s12098-014-1556-7
- Marzano, J. S., Pickering, D., & Marzano, R. J. (2003). *Classroom management that works:**Research-based strategies for every teacher Association for Supervision & Curriculum Development (ASCD)
- Parker, H. C. (2005). The ADHD handbook for schools: Effective strategies for identifying and teaching students with attention-Deficit/Hyperactivity disorder (2; 2 ed.). US: Independent Publishers Group.
- Parker, H. (1994). *The ADD hyperactivity workbook for parents, teachers, and kids* (2nd ed., pp. 76, 80-81). Plantation, Florida: Specialty Press.
- Schoolwide Positive Behavior Support. (2015) Retrieved June 25, 2015, from http://www.resa.net/curriculum/positivebehavior/
- Simonsen, B., & Fairbanks, S. (n.d.). What Every Teacher Should Know: Evidence Based

 Practices in Classroom Management. Retrieved July 12, 2015, from

 http://www.apbs.org/Archives/Conferences/fourthconference/Files/Simonsen_fairbanks.pdf

Webber, J., Scheuermann, B., McCall, C., & Coleman, M. (1993). Research on self-monitoring as a behavior management technique in special education classrooms: A descriptive review. Remedial and Special Education 14(2), 38-56. doi: 10.1177/074193259301400206