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Students with ADHD: Can They Find Success in the Classroom?

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Students with ADHD: Can They Find Success in the Classroom?

Abstract

Attention-deficit/hyperactivity disorder (ADHD) affects roughly 3% to 10% of students in a classroom today. Many students with ADHD have weak executive functioning which prevents them from controlling their impulses and maintaining focus throughout the school day. Research has shown that behavioral strategies must be implemented in the early grades to be the most successful. The current study examined the utilization of behavioral and academic interventions with students. The study consisted of student surveys, interviews, and field notes taken before and after specific interventions were taught and implemented. The findings of this study were that all students in a classroom can benefit from the explicit instruction and use of behavioral and academic interventions to help maintain focus. This study has implications for all adults in a school setting who interact with students.

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**Students with ADHD:
Can They Find Success in the Classroom?**

By

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**Submitted in partial fulfillment of the requirements for the degree
M.S. Special Education**

Supervised by

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**School of Education
St. John Fisher College**

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Abstract

Attention-deficit/hyperactivity disorder (ADHD) affects roughly 3% to 10% of students in a classroom today. Many students with ADHD have weak executive functioning which prevents them from controlling their impulses and maintaining focus throughout the school day. Research has shown that behavioral strategies must be implemented in the early grades to be the most successful. The current study examined the utilization of behavioral and academic interventions with students. The study consisted of student surveys, interviews, and field notes taken before and after specific interventions were taught and implemented. The findings of this study were that all students in a classroom can benefit from the explicit instruction and use of behavioral and academic interventions to help maintain focus. This study has implications for all adults in a school setting who interact with students.

Students with ADHD: Can They Find Success in the Classroom?

Teachers are asked to meet the needs of a very diverse group of students who have a wide range of skills and support systems. Our districts do not always meet our needs in regards to professional development, but that does not mean we need not worry about new trends in education. Instead, we are to be well read and keep our skills updated so that we can best fill the role that is needed in the classroom.

It is not easy to always be learning new methods, strategies, and curriculum, however, it is part of the profession. Education is not static, but rather it changes from year to year and we must meet these changes with a flexibility that allows us to present best practices to our students. Students with ADHD are only a small percentage of the students in the school, however, we owe it to them to ensure that they are also experiencing academic achievement in the classroom. Students with ADHD can be successful in the classroom, but there is work needed to be done that will help to differentiate instruction for each student.

In my research study, I surveyed and observed students in my own classroom. My multiage classroom consists of 21 students in 2nd and 3rd grades ranging in age from seven to nine years old. Four students currently have IEPs with another student waiting to receive testing for possible special education classification and the rest are general education students. One student has a 1:1 teaching assistant while another teacher's aide who comes in to support two students who have recently been integrated into a general education classroom from the 8:1:1 program at our school. There is a special education provider that comes in for 30 minutes during our ELA block and 30 minutes during our Math block. I also have an ENL teacher who comes in

to support one of my students during ELA daily for 45 minutes and an AIS Math provider who supports four students for 30 minutes twice a week.

I received permission from my school administrator to survey the students, as well as teach them research based interventions to try to keep their focus throughout the day. My role in this study was to observe the students during small group instruction and independent work time to determine their academic work habits. After observing the students and analyzing the data collected from the written survey the students completed, I determined what strategies would be most effective for meeting the needs of the students and began teaching them how to incorporate these strategies into their daily work time.

Researcher Stance

I am currently certified in Elementary Education, grades 1-6. I am presently enrolled in a program working towards earning a Master's of Science in Special Education. While I am working towards this certification, I am also employed as a general education teacher at the elementary school where I am conducting my study.

My role in this study was an observer and interviewer. I observed the students in my classroom over a one week period and then had them complete a survey about their academic work habits in school. As students went through their day, I recorded field notes of what kind of behavior was occurring before interventions were taught. Based upon the themes found from the data gathered in the first survey, several strategies were taught to the students and implemented during small group instruction, as well as independent work time. After three weeks of utilizing

these interventions, students were again surveyed to discover if these interventions had been successful in changing the academic behaviors of all students to promote success in the classroom.

What is ADHD?

ADHD is characterized by a pattern of behavior, present in multiple settings (e.g., school and home), that can result in performance issues in social, educational, or work settings (American Psychiatric Association, 2015). This disorder affects roughly 3% to 10% of children in the United States alone (Mautone, Lefler, Power, 2011). As stated by Rief (2003), “Students with attention-deficit/hyperactivity disorder (ADHD) have a host of difficulties related to the core symptoms and executive functioning weaknesses associated with the disorder” (p. 61). Executive functioning is what students use in the classroom to control their behaviors and to know what it means to act appropriately in a classroom setting (Murphy, 2014). Hoff & Ervin (2013) report, “Students who exhibit disruptive behaviors in the classroom are at increased risk for academic deficits, absenteeism, school dropout, and delinquency” (p. 151).

Characteristics

As stated by Haraway (2012), “Students with ADHD can present unique challenges within the school environment. It is important to remember that the population of students diagnosed with ADHD is a heterogeneous one, and every child is an individual presenting unique characteristics” (p. 17). Students diagnosed with ADHD may find school to be a struggle for a variety of reasons. They may have difficulties with organizational skills, study skills, time management skills, and the completion of classwork and homework. They also may show the inability to work within a set of rules causing them problems dealing with the staff and other students in the school (Rief, 2003). According to Murphy (2014), “Difficulties related to ADHD

may first become apparent at school due to a mismatch between children's behavior and classroom expectations" (p. 67).

Students with ADHD are asked to behave in unrealistic ways in the classroom. As stated by Zambo, (2006), "Providing short periods of instruction, using multiple modes of input, and making the environment conducive to their needs is important. It is also important to be aware of the behaviors that children are expected to perform" (p. 70).

Statistics

Research has shown that students diagnosed with ADHD are more likely to "have poorer grades, lower scores on standardized tests, greater likelihood of identification for special education, and an increased use of school-based services" (DuPaul, Weyandt, Janusis, 2011, p. 36). Students may also have higher rates of absenteeism, grade retention, and quitting school. They are also less likely to attend college or a trade school (DuPaul et al., 2011).

Educational rights of students

Even though students diagnosed with ADHD may have difficulties in a school setting there are laws protecting their right to be educated. As stated by Rief (2003), "There are two federal laws protecting the rights of children with disabilities, including those with ADDs, and require that school districts provide a free and appropriate public education in the least restrictive environment" (p. 64). The names of the laws are IDEA (Individuals with Disabilities Education Act) and Section 504 of the Rehabilitation Act of 1973. Some of the protections include disciplinary limitations allowed for the students and formal reviews of the academic plans and placements set in place (Rief, 2003).

Role of the Teacher

What does all of this mean for the teacher? As expressed by Murphy (2014), “Our task as educators is to ensure that children’s unique ways of being, learning, and demonstrating their knowledge are respected, valued, and reflected in our teaching” (p. 66). Most teachers have taught at least one student that has been diagnosed with ADHD or exhibits the attributes of a student with ADHD. Because of this, teachers need to become more educated as to what ADHD is and why students are acting as they are. Fruth (2014), points out that,

Accountability measures such as No Child Left Behind and now the Common Core have ensured that our students are exposed to the most meaningful and necessary content.

However, further steps must be taken to ensure that all our students have the readiness to process and utilize these advanced curricula. (p. 281)

In order for learning to take place in the classroom, teachers must create environments with high expectations for all students regardless of their disability.

Attitude of the Teacher

Although there is not a lot of research about how teachers feel about ADHD or students that are diagnosed with this disorder, there are studies that find teachers feeling unprepared to deal with students who are diagnosed with ADHD. One specific study, outlined by Barnett et al. (2012), “measured knowledge, attitudes, and behaviors before and after the Web-based intervention program” (p. 227). The study measured the attitude, knowledge, and any behavior change in the teacher before and after the web-based professional development. Barnett, et al., (2012) found, “ The current pilot project has offered insight into how teachers’ knowledge and attitudes about ADHD can be changed as a result of a Web-based intervention” (p. 229). The

findings revealed that this type of professional development can be effective in changing the knowledge base and attitude of the teacher towards students with ADHD (Barnett et al., 2012).

According to Zambo, (2006):

When there are multiple students with ADHD in a classroom, teachers may come to feel overwhelmed and this may cause them to focus on students' weaknesses instead of on their strengths. When this happens day in and day out it can form a vicious cycle of negative feelings and thoughts in a teacher's mind. (p. 68)

Teachers who understand the child's diagnosis and accept the differences in their learning needs and abilities will be more willing to work with the student, parents, and other personnel to implement interventions that are suggested states Rief (2003). They also reported that, "An optimal placement for all students, but particularly those with ADHD, is with a motivating teacher who gauges students' attention and interest, provides a high degree of active learning and response opportunities, and appreciates diversity in students" (p.62).

Teacher language can also impact the success of all students in a classroom. Repeating instructions while also giving visual cues may reach more than just the auditory learners in the room. The way in which a teacher speaks to the class should be positive and specific. Students with ADHD will be more successful in following the directions of the teacher if they are given in a simple and explicit way (Murphy, 2014).

Professional Development

It would seem that with all of the research out there, school districts would be doing everything they can to provide teachers the tools to successfully teach students with ADHD. However, according to the results of a recent study highlighted by Burkman (2012), "81% of teachers admitted to being challenged by overactive children, but only 27% had been offered

professional development of dealing with this issue” (p. 29). Studies report that a large majority of teachers feel unprepared to deal with students that have been diagnosed with ADHD, but are willing to undergo extensive training to better serve them (Murphy, 2014).

In general, most classroom teachers feel ill-equipped and lacking the general knowledge needed to be effective in educating children with ADHD. Techniques that are suggested to the classroom teacher may not be implemented properly due to this lack of knowledge. For example, the use of daily report cards home each day can help to monitor how well students perform on targeted behaviors (Rief, 2003). Movement breaks during the work can also be a beneficial way for the student to refocus (Murphy, 2014). A specific technique that is being used to increase executive functioning of students is the use of exercise breaks in the classroom. Recent studies show that the use of exercise breaks lasting 10 or more minutes show small improvement in math. However, according to Howie et al., (2015), “With strict school schedules and curricula, most exercise breaks currently being implemented in schools last less than 10 min. Additional training and resources may help teachers and administrators conduct 10-min classroom exercise breaks” (p. 223).

As stated by Barnett, Corkum & Elik, (2012), “There are no published Web-based studies that attempt to provide interventions to change teachers’ knowledge and opinions of ADHD and, therefore, the current study used a learning management system (LMS) to host an online educational intervention” (p. 227). This study was conducted in Nova Scotia, Canada over a 7 week period. It included nineteen female elementary teachers ranging in age from 25-55 years old. Each teacher was required to complete one session a week that took approximately 30-60 minutes. According to Barnett et al., (2012), “Each session consisted of PowerPoint presentations, Web-links, and discussion board activities related to different aspects of ADHD”

(p. 228). Barnett et al. (2012) goes on to state, “After the intervention, the teachers reported increased knowledge of ADHD as well as rated themselves as more in control and having higher competence in regard to managing ADHD in their classrooms” (p. 228).

Research has overlooked the importance of professional development as a key component to better serving students with ADHD. It is now time for the teaching profession as a whole to take a look at how districts are using their professional development time, who is doing the planning, and evaluating the benefits gained from such training (Burkman, 2012).

Collaborative Teams

DuPaul et al. (2011) states, “Collaborative consultation involves an equal partnership between two partners (e.g., school psychologist and classroom teacher) to define a problem and develop interventions” (p. 39). This type of collaborative relationship can ensure that interventions are properly implemented and the student has a higher chance of academic growth and success in the classroom (DuPaul et al., 2011).

As stated by Rief (2003), “School success for most children with ADHD requires collaborative effort from parents, clinicians, and educator” (p. 61). Rief (2003) goes on to say, “The classroom teacher is the primary source of information for direct observations regarding the student’s current school functioning (work production, and social/behavioral aspects)” (p. 63). Teachers are often asked to work closely with other members of a support team at the school, such as a school psychologist, a school counselor, or any other member of the staff who would provide services for the student. These team members can also help to gather information to be reported back to the child’s clinician (Rief, 2003).

Interventions

As stated by DuPaul et al. (2011), “Given the less-than-favorable prognosis for children with ADHD, it is imperative that empirically supported interventions are implemented early, particularly during the elementary school years” (p. 36). Although students are often prescribed medication for their ADHD, that rarely works if not combined with other behavioral strategies (DuPaul et al.). There are three types of interventions used for students with ADHD: academic, behavioral, and self-regulation.

Academic

Academic interventions are put in place to help the student achieve academic success with the curriculum. The use of computer technology is a great way to help students with ADHD maintain on task behavior. Setting up peer tutors for students with ADHD is another intervention that works well for all students, not just the students with ADHD. Some students benefit from direct instruction in remediation skills needed to be mastered (DuPaul et al., 2011). Rief (2003) suggests graphic organizers to help organize their thoughts. A visual checklist is another way for students to ensure that they are following the proper steps needed for an assignment (Murphy). Masking longer assignments can help to make them more manageable for the student. This can be done by covering up parts of the work that the student is not working on at the time. Both Murphy (2014) and Rief (2003) agree that students with ADHD must be taught specific metacognitive strategies such as visualizing, notetaking, summarizing, paraphrasing, and self-questioning. As stated by Zambo, (2006), “Instruction should be differentiated, meaning that it should be taught in a way that matches their ability level and learning mode” (p. 71).

In a recent study outlined by Howie, Schatz, & Pate, (2015), the effects of classroom exercise breaks on executive function and math performance were studied. The study was conducted to identify the effects of 5-,10-, or 20- minute exercise breaks on the cognitive math abilities in 9-to12-year olds. The study utilized a classroom exercise break intervention system known as Brain BITES (Better Ideas Through ExerciSe). There were five classroom groups set up and data was collected during the spring of 2014. According to Howie et al., (2015), “Although this study did not find cognitive improvements after 5 min of classroom exercise breaks, breaks of 10 min and 20 min were sufficient to elicit small improvements in math performance” (p. 223).

Behavioral

Some students with ADHD may display inattentive or disruptive behaviors that need to be addressed. According to DuPaul et al. (2011), “Behavioral interventions involve modifications to the environment that directly address this impairment. A variety of antecedent-based interventions have been used to try to prevent inattentive and disruptive behaviors from occurring” (p. 36).

Within the general education classroom setting, there are several role models that the student can imitate in order to understand what appropriate behavior looks like. The characters in a story book can also be used to model this appropriate behavior, especially if the main character is a child with ADHD or other disability. The role models are effective as Zambo (2006) states, “Students become persuaded to perform a behavior if the model is similar to themselves in terms of looks and ability. Seeing models similar to oneself overcoming difficulties can give students an “if they can it, so can I” attitude” (p. 71).

Classroom rules can also help students with ADHD keep focused on what is appropriate behavior. They should be displayed in the classroom, written in positive language, and have been modeled for the students. Teachers should offer praise often when students are exhibiting appropriate behaviors (DuPaul et al.). Students who have difficulty attending to a focused task for an extended period may benefit from the use of fidget toys or allowing the student to stand or move around while they complete the work (Murphy, 2014). Both Murphy and DuPaul et al. (2011) mention task choice as a way to keep students engaged. This is also found in the research documented by Brown, Reichel, and Quinlan (2011), where it is stated, “Individuals with ADHD often demonstrate little impairment in their ability to deploy executive functions when doing tasks which hold strong personal interest or anxiety for them, though they show much executive functioning impairment in most other situations” (p. 79). It is not recommended to take away recess time from students with ADHD since they need that movement to be able to focus in the classroom (Murphy, 2014).

Self-regulation

Students with ADHD can often develop a poor self image of themselves as learners. It is important to provide aid to the students to help them begin to see themselves as learners. This self-awareness can often be the first step needed to remove these negative feelings and poor self image (Zambo, 2006). According to DuPaul et al. (2011), “Self-management (or self-regulation) interventions encourage students with ADHD to monitor, evaluate, and/or reinforce their own behaviors, often in conjunction with or following the successful application of teacher-mediated behavioral approaches” (p. 37). Students should be learning how to monitor their behaviors in the classroom, their quality of their work, and their interactions with other students. This should

be done periodically and reviewed with the student to ensure that they are taking responsibility for their own actions (DuPaul et al., 2011).

Hoff and Ervin, (2013) report, “Research suggests that when targeting individual students’ behavior for intervention, self-management procedures can lead to significant gains in appropriate classroom behavior with minimal external support” (p. 151). Hoff and Ervin (2013), go on to say, “Self-management is one strategy with demonstrated efficacy as intervention for targeting disruptive behavior” (p. 151). As stated by Haraway (2012), “Undeniably, behavioral self-management is the ultimate goal for all individuals and thus should be a continual long-term target and integral component of interventions” (p. 19).

It is often impractical to design a different self-management system for each individual student that is in need of one in the classroom. Instead, Hoff & Ervin (2013) state, “Existing research supports the use of classwide self-management strategies in general education settings” (p. 152). These classwide self-management strategies place some responsibility on the student to alter his/her behavior, evaluate their behavior on a point scale, and then rate the behavior with another student in the classroom. In settings where this type of classwide intervention has been used, there is an increase in on-task behaviors and a decrease in disruptive behaviors (Hoff & Ervin, 2013).

Hoff & Ervin (2013) state, “When self-management interventions are implemented on a classwide basis, it is important to consider reinforcement strategies that focus on group rather than individualized contingencies” (p. 153). Both Hoff & Ervin and Fruth have outlined one specific strategy used in the classroom called the PAX Good Behavior Game. Fruth (2014) shares “The PAX Good Behavior Game is not an additional curriculum, but a collection of strategies that teachers can execute during daily tasks such as reading a story, taking a spelling

test, or walking to the drinking fountain” (p. 282). To play the game, the teacher will announce that the game will begin during a specific activity, review behavioral expectations, and will select a timeframe for the game. The students are broken into teams of 4 or 5 and will be judged according to the behaviors of everyone on the team. Teams are awarded points for appropriate behaviors and deducted points for behavioral infractions (Fruth, 2014). According to Fruth (2014), “Classrooms that adopted the Good Behavior Game showed 60-90 more minutes of instructional time per day than the traditional classroom” (p. 2). Fruth (2014) goes on to state, “These same classrooms showed 75-125 fewer disruptions per hour than traditional classrooms” (p. 2). Fruth (2014) and Hoff & Ervin (2013) found that through participation in the Good Behavior Game, students can begin to recognize how they fit into their class community and how their behavior can impact the learning of others in the classroom. This game also promotes positive peer pressure and an increase in self-regulation.

Students also benefit from frequent and immediate feedback from the teacher using declarative language to help them begin to engage in self talk when they are completing a task (Murphy, 2014). A daily report card home which monitors specific target behaviors is another way for the student to record their behaviors and report them back to the parents (Rief, 2003).

Family-School Collaboration

Another important piece to this puzzle is the importance of a family school collaboration. As reported by DuPaul et al. (2011), “Given that children with ADHD experience significant difficulties across settings, home-school communication programs are important components of a comprehensive treatment plan” (p. 38). Daily report cards, as listed above, are also said to be an important link between home and school (DuPaul et al., 2011). Most intervention systems are one dimensional and target either school or home separately. This is not always the best

approach to provide consistency to the student (Mautone, Lefler, and Power, 2011). Parents are often the first to mention that they are beginning to investigate a diagnosis of ADHD with their pediatrician. It is important to note that as educators, we should never initiate talks with parents that involve medication to treat their child, but rather to report back to them what we see in the classroom setting (Rief, 2003).

Family School Success (FSS)

There is an intervention system that helps to link family with the school called the Family School Success (FSS). As outlined by Mautone et al. (2011), “The FSS program is grounded in attachment theory, social learning theory, and ecological systems theory” (p. 45). It is a 12 week program that is focused on improving the parent-child relationship, parenting skills, family involvement, and fosters a strong school to home communication. This program is so unique because it is primarily focused on improved relationships rather than academic or behavioral skills (Mautone et al., 2011). Mautone states (2011), “Through positive interactions with their parents, children learn self-regulation skills that provide the foundation for relationships with adults and peers outside of the home” (p. 45). Participants in this program realize the importance of positive interactions between adults and children, since most of their previous interactions involved negative feedback from the adults in their lives. If their perspective can be changed, stronger bonds between parents and their children can develop and result in the strengthening of the parent-child relationship (Mautone et al., 2011). Mautone et al. also shares (2011), “A primary goal of FSS and other behavioral interventions is to increase the rate at which parents use attention as a positive reinforcer for appropriate behavior and withdraw attention in response to inappropriate behavior” (p. 45).

Conclusion

Given the literature that was reviewed, it is clear that the role of the educator in today's classroom is essential to the success or failure of a student with ADHD. The research shows that students with ADHD present themselves in a much different way than the average student and require teachers to have specific knowledge of this disorder in order to differentiate instruction and expectations.

According to the research 3% to 10% of children in the United States are diagnosed with ADHD (Mautone, Lefler, Power, 2011). This means that there is a chance that one or more students in each classroom may be diagnosed with ADHD. That does not include students who have not yet been identified or students that display ADHD behaviors. These students may be off task, disruptive, lack organizational skills, or have difficulty completing assignments. In order to be successful, they will need knowledgeable teachers and staff to help them develop the skills needed to learn to their full potential.

Close collaboration among school staff, parents, and clinicians is imperative to provide the students and families with the tools needed to be successful in the classroom. Programs that are set up to offer close communication between school and home have been successful in creating success for students with ADHD (Mautone, Lefler, and Power, 2011).

Teacher training is also important to prepare teachers to best meet the needs of diverse learners. When teachers are not properly prepared, they experience frustration and are not able to effectively evaluate each child's individual needs and strengths. Professional development is one way to provide teachers with the information needed to instruct students with ADHD and to help change the attitude of teachers towards these students. However, our districts do not always meet our needs in regards to professional development (Burkman, 2012).

Interventions are a vital part of helping students with ADHD find success in the classroom.

There are three types of interventions outlined in the research: academic, behavioral, and self-regulation. Research shows that when these interventions are properly implemented in conjunction with medication and home based strategies, students with ADHD can find success in the classroom.

Methodology

Context

This study took place in an elementary multiage classroom that consisted of students in grades 2 and 3. The elementary school is located in a small, rural community in upstate New York where there is a high level of students living in poverty. In the classroom, there is a general education teacher, a 1:1 teaching assistant, and a special education teacher that works with students in the morning and afternoon in thirty minute increments. Within the classroom setting there were several students who are diagnosed with ADHD or exhibit ADHD characteristics, but have not been diagnosed. Only one student is currently taking medication for ADHD, with another starting medication soon.

All of the students within this classroom took both a pre intervention survey and a post intervention survey to determine if their focus would improve after being taught interventions. Finally, there were two case study children chosen on which to focus. These students were interviewed by the classroom teacher to further assess what needs they may have to help them to

remain focused throughout a task. The classroom teacher and teaching assistant also took notes and observed the children when they were engaged in class activities.

Participants

There were students ranging in age from 7 to 9 years old participating in this study. All of the students were members of the 2nd/3rd grade multiage classroom. The students chosen for the case study were referred to and their data tracked as Students A and B. Student A is a student with an IEP who is diagnosed as Emotionally Disturbed who had moved into the school district mid-year. In the previous district, Student A received 45 minutes daily of pull out services with a Special Education teacher. Student B is an ENL (English as a New Language) student who has access to a ENL teacher for 45 minutes each morning. Student B has been in the district since Kindergarten and is now fluent in both English and Spanish, but can only read in English.

Method

This study was designed to determine if the use of research based interventions for the management of ADHD helps students to remain focused during independent work time and to become successful within the classroom. This study, based on the participant pool, focused on students who are diagnosed with ADHD or have ADHD characteristics and lose focus during the school day.

Data was compiled in this study after the classroom teacher and teaching assistant observed students during both small group instruction and independent work. Field notes were

taken before, during, and after observations. In addition, all students in the class were given the surveys pre and post intervention to ascertain if there were themes across the population of conditions that prevented others in the classroom to maintain focus during these work times. Students were surveyed using the same assessment at the beginning and end of the study to see how their responses changed.

Data collection

Data was collected through a variety of ways. The entire class completed pre and post intervention surveys (See Appendix A) to assess any growth shown after interventions were taught and implemented. Data on the two case study students was collected via pre and post intervention surveys and through field notes and observations by the classroom teacher and teaching assistant. Below is a list of questions students answered on the surveys which were completed over a span of 3 to 4 days.

- When do you have trouble paying attention in school?
- What helps you stay focused during independent work time?
- What time of day are you most focused?
- When do you find it hardest to focus?
- What distracts you the most during independent work time?
- What distracts you the most during whole group instruction?
- How could your teacher help you focus during the day?
- How can your teacher help to refocus you when distracted?

Findings

When students had completed both pre and post intervention surveys, data was compiled and analyzed to identify any trends or themes across the student answers. Out of the 21 students in the classroom, only 18 completed the surveys due to time spent outside of the classroom or the student's inability to understand and appropriately answer all of the questions. Therefore, the data shared will only be representative of 18 of the 21 students in the classroom.

Overall, students reported that they have more difficulty staying focused during the afternoon hours which is when math occurred daily. Five out of 18 students reported having difficulty during Math, both pre and post intervention. Also, the noise level was a problem for 10 out of 18 students before intervention and five out of 18 students post intervention. Only two students reported having a difficult time staying focused if the work was hard or they did not care for the activity. Another factor in focus was the noise level of a student with special needs. Pre intervention, six out of 18 students reported having trouble focusing. This changed to only two out of 18 after the interventions were taught and implemented.

Students were asked to report on what helped them to stay focused during independent work time. The lighting in the classroom was mentioned by three out of 18 students as being a factor pre intervention and nine out of 18 reported that lights off helped them to maintain focus during independent work time. Some other ways students stay focused during independent work time was the use of blockers, fidget tools, seat choice, self-talk, different writing utensils, and calming music. Each of these were mentioned by a few students. The post survey showed the same interventions and amount of students reporting using them.

Question #3 on the survey asked the students to identify a specific time of day when they were most focused. ELA was taught during the morning hours with 11 out of 18 students

identifying that time as their most focused. Math occurred daily after lunch at 12:30 pm, which is when only four out of 18 students reported being focused with three out of 18 not understanding the question and reporting during testing, when lights are off, and small group instruction. These findings remained the same post survey with 11 of the 18 students reporting that the morning is when they are most focused and five out of 18 reporting the afternoon was their time of day to be most focused.

Students also identified that independent work time was when they found it hardest to focus. Some of the distractions mentioned by the students during independent work time were talking/excessive noise, lighting, fidgeting by others, seating, and the work being too hard. Pre intervention results showed that nine out of 18 students were distracted by the noise level with one student mentioning the noise level of a specific student in the class. Fidgeting was reported by one student, as well as one student mentioning sitting near the computers and finding that distracting. The lights were mentioned by two of the 18 students in the room as being distracting. Post intervention results were very similar with 10 out of 18 identifying the noise level in the room, two out of 18 mentioning the lights, and one student stating that sitting near the window distracted him.

Students were also asked to pinpoint what was a distraction during whole group instruction. Blurting was named by two of the 18 students pre intervention and six of the 18 students post intervention. Seat choice or having to sit criss cross applesauce was indicated to be a distraction by four out 18 pre intervention and two out of 18 post intervention. Fidgeting of other students was mentioned by three out 18 pre intervention and three out of 18 post intervention. Some other distractions named by the students were daydreaming, open windows, and the length of the lesson.

The survey inquired as to what the teacher could do to help focus or refocus the students during the day. The most noted way for the teacher to help students was through verbal reminders which was selected by six out of 18 students pre intervention and eight out of 18 students post intervention. Students also mentioned fidget tools, blockers, non-verbal reminders, calming music, and lights off as ways to help focus or refocus students.

Student A reported being distracted all day long, especially during independent work times. When asked to share what may help Student A to stay focused, the student mentioned writing with a pen and also having the lights off during work time. When asked what time of day the student was most focused, the responses for both pre and post intervention showed that Student A is most focused during Morning meeting and the least focused during Math independent time. Student A identified computer use nearby as a major distraction while working and shared that working with someone during independent time, calming music, and verbal reminders all help to keep focus throughout the day.

Student B also completed the surveys and identified Math time as the time of day where focus was a problem. When asked what could help, Student B reported that nothing helps. When asked what time of day you are most focused, the student shared that the morning is the best time for focus. This is also the time when an ENL teacher is available for 45 minutes daily. In the afternoon, no teacher is available to work one on one with Student B and that is the time when she reported the most difficulty staying on task, especially during independent work. Student B also determined that the work during Math is too hard and needed someone to reteach during that time. Overall, Student B had difficulty articulating what could help, even after interventions were taught and offered.

Data Analysis

After reviewing the data and themes that came out of the pre intervention survey results, I decided to target specific interventions that may help the students to stay focused. The noise level in the classroom seemed to be an issue, so students were offered headphones to use during the day, as well as the opportunity to move their seats to a quieter area of the classroom. During the post survey, there was a decrease in the students who mentioned noise level as something that caused them to have trouble paying attention.

Several students also named a specific student in the classroom who has difficulty working quietly throughout the day. After working with his teaching assistant who used blockers at their table and created visual checklists for his voice level, we decided that certain times of the day would be designated as work times outside of the classroom. These times were built into his schedule and the results showed that only two out of 18 students mentioned him post survey as compared to six out of 18 pre survey.

Students also repeatedly named the afternoon as a more difficult time to pay attention. Unfortunately, that is when math is built into the schedule and cannot be changed. What I did try to do was build in outdoor recess everyday followed by lunch. This did not show any change in the focus of the students, however. Since our math time was in between lunch and special, I was not able to build in movement breaks due to time constraints.

The students did mention that they found it easier to work during the day when the fluorescent lighting in the classroom was turned off and the window blinds were opened. When the weather cooperated and the sun was out, we tried to turn off the lights in the afternoon. Students reported that this helped them to focus more when asked in the post intervention survey. Students were also offered the chance to move seats and work with study buddies during

independent work time. Results gathered show that there was a slight increase in focus when both of these interventions were used.

Another issue that was mentioned only by a few students was that the work was too hard. This went along with what was observed by the teaching staff during math time. Our school utilizes the New York State math modules available at EngageNY. These modules do tend to be difficult for some students, especially students who struggle with the math standards. After reading over the surveys, I decided to alter the math independent work from the module lessons. Students did not specifically mention it in the post survey, but I observed that students began to finish their independent work on a daily basis. This was an improvement from the previous months this year when the same few students did not complete work that was assigned to them.

As stated during my literature review, masking longer assignments can help to make them more manageable for the student. I did this, as well as visually changing the format of the work so that it seemed less difficult to the students. I found there to be an improvement for both Student A and B after four weeks of the study. I began to modify the independent work required for these students so that they still were practicing the skills, but completing fewer problems. This helped both students to begin completing their work independently. They were also assigned peer buddies in the classroom to work with them to complete assignments. However, it was very clear that the peer buddies did not have the skills needed to work with these students and it became a distraction for the students that were assigned to work with Students A and B.

Also, during that time, there was a change in staffing and I was able to have a Special Education provider for an hour each day. This has showed a tremendous difference in Student A's performance and ability to complete work daily. Now that Student A is able to work with a Special Education provider, there is no time throughout the afternoon where the student is

working independently. That means that for the full hour, the student is always working with a teacher or teaching assistant. This is helped the student complete all work and increase scores on assessments. Student B is able to work with the ENL teacher during the morning hours and was identified to receive AIS math services during the time of my study. This means that Student B receives AIS math services twice a week and the rest of the time, work is modified so that work completion is no longer an issue. With the added instruction for both Students A and B, they have been provided the reteaching and differentiation the students needed to be able to complete their work and show success in the classroom.

Discussion

What does all of this mean for my teaching and my classroom? One of the first points that comes to mind is that math should be taught in the morning when student focus is sharper. This is especially true since most of the students find the math modules to be difficult. Also, when students are having trouble working independently, it helps to modify the amount of work assigned so that you are not changing the curriculum, but allowing students to work at their own pace and still complete the work.

Research also shows that setting up peer tutors for students with ADHD is another intervention that works well for all students, not just the students with ADHD. It helped to assign a peer buddy to students who were struggling with focus. This is not what I found for Students A and B, however, for the others in the classroom working with peer buddies it has been a way for reteaching the concepts to each other.

Movement and choice were also another focal point that I found to be important in helping students to remain attentive to their work. According to research, students who have difficulty attending to a focused task for an extended period may benefit from the use of fidget

toys or allowing the student to stand or move around while they complete the work (Murphy, 2014). Allowing students the opportunity to sit or stand while working or moving to the floor in another part of the classroom helped to keep them on task. Having a variety of seating choices for the students will enable different learning styles to be accommodated within the classroom. In the future, I will be looking into changing my seating at my small group table to stability balls and possibly investing in fidgeting foot bands which are wide stretchy bands that can be placed around the front legs of a chair. Students stay focused while pressing or pulling on these stretchy foot bands.

In a recent study outlined by Howie, Schatz, & Pate, (2015), the effects of classroom exercise breaks on executive function and math performance were studied. As found in the study, the use of movement through a website such as Go Noodle was tried within the classroom setting. During subject transition times in the classroom, students participated in Go Noodle brain break activities. However, as research shows, the use of five minute increments did not show a significant increase in focus.

After looking over the data, I do wonder if four weeks was enough time to make a change in the student behavior and focus. Clearly my action research did not show the type of improvement that I was hoping to see. Teaching and utilizing these interventions from the beginning of the year may have more of an impact on the students. Also, there were a number of academic, behavioral, and self-regulation interventions that are research based, but were not implemented in the classroom. Use of these interventions in the future may show more of an impact on student focus, as well as the integration of all three types of interventions within the classroom setting. Another plus to this action research was the chance to have students begin

thinking about their own learning styles and identifying what works best for them. I will continue to encourage students to take control of their learning environment.

Conclusion

ADHD is a disorder that we are seeing more frequently in our general education classrooms with each passing year. It is estimated that this disorder affects between 3% and 10% of children in the United States. This disorder can prevent a student from functioning appropriately and experiencing success within the classroom setting. Our responsibility as educators is to make sure that all of our students can be successful. This means that we must carefully plan for the multiple learning styles present in our classrooms and find ways to teach each student with dignity and respect.

This is not always easy, especially when we feel unprepared to meet the needs of all of our students. However, this does not mean that they are not to be offered the best instructional strategies available. It may be a challenge, but educators need to learn to fit the curriculum to the students, not the other way around. Educators are in charge of the input and output of information in the classroom and need to remember that when we are teaching to today's standards.

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Appendix A

Name: _____ Date: _____

Please answer the following questions with complete sentences.

1. When do you have trouble paying attention in school?

2. What helps you stay focused during independent work time?

3. What time of day are you most focused?

4. When do you find it hardest to focus?

5. What distracts you the most during independent work time?

6. What distracts you the most during whole group instruction?

7. How could your teacher help you focus during the day?

8. How can your teacher help to refocus you when distracted?
