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The Effects of Alternative Seating on Students with ADHD

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Abstract

The purpose of this action research project was to determine if students who have Attention Deficit Hyperactivity Disorder (ADHD) or symptoms of ADHD are able to stay on task more often when they are using alternative seating. Data was taken on students prior to being given alternative seating choices, a data collector ticked every 15 seconds to determine if the student was on task or off task. Data was taken again after the student had used their alternative seating for over a week's time. Analysis of the data suggests that alternative seating may increase on-task behavior in some children with ADHD. Data also demonstrates that some children might become distracted by the alternate seating, or choose not to utilize the alternative seating.

The Effects of Alternative Seating on Students with ADHD

Teachers across the United States have struggled with students who are identified as having Attention Deficit Hyperactivity Disorder (ADHD). Those challenges are seen in large and small communities. The researcher has been teaching for seven years, and every year during that period, there have been students in the classrooms that have ADHD. The researcher is continually trying to improve the approach as a teacher with students identified with ADHD. The researcher wants to find ways to improve the educational experience for each of these kids. Part of improving that experience means helping children with these types of issues to focus better throughout the day. Students with ADHD generally have trouble sitting still. They have excess energy, and few places that are appropriate to use it during the school day. Alternative seating has recently been researched and validated as an option to utilize in the classroom. The researcher will give the students the opportunity to use alternative seating, to find if it will help the students focus better throughout the day.

This topic will be able to be explored through action research as the researcher collects data on the specific students' time on task and off task. Specifically the researcher will be investigating whether students with ADHD who use alternative seating have more on-task behavior. Data collection will take place before using alternative seating and while using alternative seating. The goal is that through the action research, there will be some clear understanding whether or not alternative seating has a positive outcome on students' on-task behavior.

Literature Review

Teachers are provided with the opportunity to educate children from many different backgrounds. Students all have different needs and experiences, and it is a teacher's job to

differentiate for each child's need. Teachers are frequently welcoming students with ADHD or Autism Spectrum Disorder into their classroom. Children with ADHD often have issues with staying on-task. Teachers often see these children sitting on their haunches in their chairs, roaming around the classroom, tipping back on their chairs, and simply being off-task. There are many methods to help children with ADHD manage their tendencies in the classroom, to help them be the best student they can be. One method to help students stay on task is through the use of alternative seating. For clarification, this researcher defines alternative seating as any seating outside of the traditional chair, and is a seating choice that provides some stimulation or movement for the student.

Research that has already been done on this topic has validated what many teachers have experienced in their classrooms. Students who are provided an alternative seat are more attentive in the classroom. In a study done by Schilling and Shwartz (2004), students were given therapy balls instead of the typical carpet squares or chairs. The researchers and teachers found that the children in this particular study exhibited "substantial improvements in engagement and in-seat behavior when participants were seated on therapy balls" (Schilling, 2004, p. 423.) This study also indicated that when given the choice, teachers shared that their preference was that their students would have the choice to utilize therapy balls as their students were more attentive when using them versus the traditional seating (Schilling, 2004).

Other research has been done on sensory processing of children. Neuroscience has shown that children have, at each stage of development, sensory processing needs. These needs are satisfied through various sensory-based experiences, both small motor movement and large motor movement. In the article *Sensory Processing as an Evidence-Based Practice at School* there was a conclusion that, "sensory processing interventions need to be incorporated into the

routines of the child's day to yield generalized outcomes" (Dunn, 2009, p. 1). For teachers, this means that sensory processing should not be something that happens exclusively at occupational therapy or in isolation of the classroom. Sensory processing should happen as an integral part of the child's school day. Some examples could include brain breaks with music or movement, use of alternative seating, and simply more opportunities for a student to move throughout the school day.

In a study by Mulrine (2008), researchers again bring about the importance of incorporating exercise into the school day. They further the point that children with ADHD need movement in order to concentrate. It was determined that children with ADHD needed more blood flow to the brain, which happens through movement and exercise. Mulrine (2008) also found that allowing students with ADHD more movement throughout their day improved their classroom behavior and often curbed behavior problems in the classroom.

Methods

Participants

This action research was completed in a fifth grade classroom in rural Iowa. Students in the classroom range in ages from 10-11, and are predominately white. The school has 51% of students identified as receiving free and reduced lunches program. Of the 19 students in the study classroom, four have an Individualized Education Plan (IEP), and two students have a diagnosis of ADD or ADHD.

Data Collection

During the second week of the school year, two students were identified as having a diagnosis of ADHD or ADD from a mental health professional. An additional student exhibited symptoms of ADHD, and had been given several interventions throughout the child's school

years to help this child with symptoms of ADHD. All three of these students were observed as exhibiting symptoms of ADHD in the classroom. Some of the observed behaviors observed were: moving or fidgeting frequently, not visually tracking the teacher, getting out of seat at inappropriate times, blurting out, building or destroying things with school supplies, and interacting with students in close proximity. After three students were selected, the researcher carefully considered the benefits and drawbacks of alternative seating for each of the students. The researcher also made contact with each parent or guardian to ensure that parents were supportive or their child using alternative seating.

The researcher invited a veteran teacher who was familiar with each of these students to come and observe these students during direct instruction in math. The first data collection took place in the second week of school. At this time, the students were using traditional seating of the plastic chairs next to their desks. This data collection took place in the morning, after a fifteen-minute recess. Students were working in a whole group on a ten-minute daily math lesson, as well as listening to the instructions for guided math for that day.

The data collector had a form to mark every fifteen minutes. Every fifteen minutes, the data collector had to make a tally in the on-task column if the student appeared to be on-task and in the “off-task” column if the student appeared to be off-task. In order for the student to be marked “off-task” the student had to appear to be off task. Students were identified on the form as Student A, B, and C. The data collector took special care to also look around the room at other students so that the three student observed did not recognize the extra attention. The data collector ticked on this report for 15 minutes during the first observation period.

Findings

Data Analysis

	Student A	Student B	Student C
8/29/17	On-Task: 26 times Off-Task: 33 times	On-Task: 40 times Off-Task: 19 times	On-Task: 48 times Off-Task: 11 times
9/11/17	On-Task: 35 times Off-Task: 25 times	On-Task: 20 times Off-Task: 30 times	No longer using alternative seating.

For Student A, that data showed an increase in on-task behavior and a decrease in off-task behavior. In the first data collection, Student A was on-task 26 times and off-task 33 in the duration of the 15 minute period data collection. While using alternative seating, “Student A” was on-task 35 times and off-task 25 times. For this student, the alternative seating had a positive impact on the amount of time the student was on-task while the data collection was taken.

Student B was on task 40 times and off task 19 times during the first data collection, not using alternative seating. During the second data collection, while Student B was using an

alternative seating option, the student was on-task 20 times, and off-task 30 times. This student showed an increase in off-task behavior while using alternative seating. This would suggest that the alternative seating did not have the desired effect for this student.

Student C verbalized the feeling of “having too much to do” when using alternative seating. This student did not like the alternative seating and did appear more distracted to the teacher. Alternative seating was discontinued as it was in the student’s best interest.

The data suggests that alternative seating can help some students be more focused and have more on-task behaviors in the classroom. It also suggests that alternative seating might not be appropriate or beneficial for all students that have ADHD.

Discussion

Out of the three children given the alternative seating, one child did not like the alternative seating and preferred the typical chair. The child tried some of the alternative seating choices and verbalized to the teacher that all of the choices made her feel more distracted. The student expressed to the teacher feeling as if “having too much to do” when using the alternative seating choice. This researcher felt it appropriate to allow this student to make that decision and no longer encouraged this child to continue to try the alternative seating. The researcher continued to collect data on this child. During the first data collection, this child was on-task 48 times and off-task 11 times. During the second data collection, this same student was on task 37 times and off-task 23 times.

Limitations to the Study

If more funds would have been available for alternative seating, this researcher would include the entire class in the research to find if alternative seating would have an increase in on-task behavior for the typical students in the classroom.

Further Study

Further study would be beneficial in a larger population to identify the benefits in the general classroom setting.

Conclusion

Alternative seating might be an option for some students to help them focus and be more on-task in the classroom. It might also be a distraction to them. If using alternative seating in the classroom, it would be important that the teacher and student collaborate about how the student is feeling about the alternative seating. It would also be beneficial for the teacher to collect data on each student using the alternative seating to find if it was creating the desired outcome. Alternative seating, if new in a classroom, will also need to have some boundaries and expectations for students. This teacher found that when given specific expectations and positive reinforcement, students were able to utilize it appropriately without distracting their peers in the classroom. This teacher will continue to utilize alternative seating as an option for students to help them focus and stay on-task during their instructional and independent work times in the school day.

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