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Hume, Emily V.; Giordano, Joan; and Miller, Amanda, "Attention-Deficit/Hyperactivity Disorders Effect on a Student's Academic Achievement" (2017). *Longwood Graduate Research Symposium*. 26.  
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Attention-Deficit/Hyperactivity Disorders Effect on a Student’s Academic Achievement

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Abstract

Studies have shown that students with exceptionalities especially those diagnosed with intellectual disabilities struggle in academic achievement. This is especially true when compared to their grade-matched controls (Van der Ven et al., 2011). However, mixed results were found with students with ADHD. ADHD does affect academic achievement, but their ability to get the information needed. Many receive 504 accommodations to help them succeed in their current educational settings. This project is to examine the academic level of an individual with ADHD. We administered three standardized tests to measure a student’s reading and math skills and their overall academic achievement. We conducted a total of three observations and found the student’s cumulative grade point average. The results of the test show that the student’s academic achievement level is within one standard deviation of the mean.

Case Study

Student

The student is an eight-year-old third-grade student at Buckingham County Primary School in Dillwyn, Virginia. The school is departmentalized, the student switches classes for math and reading. He is in an inclusion classroom with Special Education support. The student does not show all of the symptoms of his exceptionality. His most apparent symptom is the hyperactivity.

Learning Needs

The student was found eligible for Special Education services under the qualification of Other Health Impairments for his diagnosis of Attention-Deficit Hyperactivity Disorder. Through his IEP the student also receives speech services for the 30 minutes once a week and Occupational Therapy services.

Behavior Issues

The student showed various hyperactivity behavior issues throughout the testing process. His behaviors did not affect him socially but did have an impact on his learning. He rushed through his assessments and some of his answers were impulsive. He asked for multiple breaks throughout because his concentration was not great.

Exceptionality

The student’s exceptionality is Attention-Deficit/Hyperactivity Disorder. According to the Mayo Clinic, it is a chronic condition that includes a combination of issues. This involves inattentiveness, hyperactivity, and impulsive behaviors. Students with ADHD may experience poor relationships, low self-esteem, and may struggle in school.

Research Question

What is the level of academic achievement for students categorized with Other Health Impairments specifically those diagnosed with Attention-Deficit/Hyperactivity Disorder?

Hypothesis

- The student with ADHD will score within one standard deviation above or below the mean on the reading level with grade-matched peers.
- The student with ADHD will score within one standard deviation above or below the mean on the math test compared to grade-matched peers.
- The student with ADHD will score within one standard deviation above or below the mean on the overall achievement test compared to grade-matched peers.
- We expect to reject the null hypothesis that the student with score two standard deviations above or below the mean on all tests.

Assessment Questions and Procedure (IAP)

Kaufman Test of Educational Achievement

The student’s scores were inconsistent throughout the assessment. His scores were a reflection of how his exceptionality of ADHD can affect his academics. There were subtests where he scored a high average range as well as a standard deviation above average but there were also subtests where he scored in the lower average range as well as one standard deviation below average. His math scores were consistent with the other mathematical assessment, KeyMath-3, demonstrating that he is performing below average in mathematics. He scored above average in the object naming facility and letter naming facility.

Summary and Discussion of Results

Kaufman Test of Educational Achievement

The student is performing one grade level below his current grade level. His total standard score for this assessment was 83. This is one standard deviation below the average. For each subtest, he performed below his grade level. Some subtests were only slightly below, while others were more significant, such as measurement and data analysis and probability. The student had the most trouble focusing on the test and question at hand and struggled to pay attention. This gradually become more apparent as the test progressed. We believe that his scores on the final cluster of the test do not truly reflect the student’s abilities in this area because he was unoccupied about the test at this point and was more concerned about going to recess.

Woodcock Reading Mastery Test- Revised

The student is completing most work at grade level and is performing at a level that is reasonable for his age and grade. The student performed well on most tests and he struggled, he still persisted. He is strong on identification of words and letters as well as his comprehension. One area he struggled in was the antonyms. He understood the general concept that it was the opposite but he could not think of words that meant the opposite. In many subtests, his answers were incorrect but still made logical sense.

References


We administered the Woodcock Reading Mastery Test with a standard score of 91. We reject the hypothesis that he would score one standard deviation above the mean on the Mathematics Assessment. He scored two standard deviations below the mean on the KeyMath-Achievement 3 with a standard score of 83. We believe that his ADHD affected his ability to sit, focus, and put forth his best effort for a prolonged period of time while taking the tests.

Conclusion

We accept two of the three hypotheses. The student’s overall standard score was within one standard deviation of the mean on the Kaufman Educational Test of Achievement with a standard score of 87 and the Woodcock Reading Mastery Test with a standard score of 91. We reject the hypothesis that he would score one standard deviation below the mean on the Mathematics Assessment. He scored two standard deviations below the mean on the KeyMath Achievement 3 with a standard score of 83. We believe that his ADHD affected his ability to sit, focus, and put forth his best effort for a prolonged period of time while taking the tests.

Instruments

Kaufman Test of Educational Achievement - 3rd Edition

This test is administered individually to students. It is a battery of subtests that measure various aspects of academic achievement. The test is administered to students ages 4 years to 18 years. The student can be tested in one or more settings (individual, group, classroom).

Woodcock Reading Mastery Test- Revised

This test is administered individually to students. It is a battery of subtests that measure various aspects of reading achievement. The test is administered to students ages 4 years to 18 years. The student can be tested in one or more settings (individual, group, classroom).