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Tracking Behavioural Interaction Changes in Children with ASD

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ABSTRACT

This study's objective is to determine whether or not exposure to a certain setting might improve a child's ability to engage in social contact when they have autism spectrum disorder (ASD). In this study, an approach that may be described as quasi-experimental was used to make a comparison between a group that received special education and a group that attended public school. The study came to the unexpected conclusion that pupils' results improved when they attended public schools. In spite of the fact that the difference is not nearly as significant as those of others, it is nevertheless sufficient to generate a distinct outcome. This result may have been brought about by any one of a number of distinct circumstances or factors.

Keywords: ASD, Interaction, Public School, Special Education.

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1. Introduction

All students are entitled to a free education in public schools as that is a requirement. The majority of autistic children do, in fact, go to regular schools. A student with autism may, in some circumstances, benefit from attending a public school because of the suitable educational and social environments it offers (Hess et al., 2008). However, in many instances, the local public schools will struggle to establish an adequate configuration and to deliver a relevant educational program, particularly for individuals who have autism spectrum disorder (ASD).

In addition to participating in academic programs, the vast majority of children who have autism will also get treatment, which typically consists of speech therapy, occupational therapy, and/or physical therapy. If a student has the capacity to learn, they will be taught in the same manner as their classmates who have a typically developing respiratory system. It is possible for the kid to be educated in special education courses or in a resource room if the child has intellectual, learning, or attention problems that are not severe. When dealing with more severe situations, the majority of the therapy strategy could consist of behavioural (rather than cognitive) training (Mellado-Cairete et al., 2019; Nararro-Haro et al., 2016; McKay et al., 2015; Cook et al., 2008).

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A student who falls anywhere on the autistic spectrum would benefit tremendously from participating in the public-school system (Akshoomoff et al., 2006). To begin, there is no cost associated with attending public school. There is a lot more to a public-school education than just academics now, according to the Individuals with Disabilities Education Act (IDEA). A child diagnosed with autism is entitled to a "Free and Appropriate Public Education" (FAPE) in the "Least Restrictive Environment" under the provisions of the Individuals with Disabilities Education Act (IDEA) (LRE). In order for a kid with autism to have at least some level of success in a specialized educational environment, that child has to have access to the appropriate supports (Cole, 2021).

Kurth & Mastergeorge (2010) suggest that an Individualized Educational Plan is required to be created for every autistic student attending a public school (IEP). In it, a guardian and the "team" that serves the kid at the district level will draw up a plan and benchmarks for the child based on the child's objectives and requirements. If a kid isn't making the desired amount of development, the child's guardians or members of the team might arrange a meeting to discuss the next step to take.

On the other side, it is possible for there to be a circumstance in which an educational program that seems to be appropriate at first glance but, in fact, erroneous (Liang & Lin, 2008). A kid who has significant difficulties in the areas of sensory and behavioural development will never be able to use the system since it was designed for children who's sensory and behavioural development. When placed in a classroom with several students who struggle significantly academically and behaviourally, a kid with high-functioning autism may find it difficult to interact with the other students (Salceanu, 2020; Kiefer, 2015). It is more probable that the autistic kid will get overwhelmed and distracted due to the presence of these other children (Owen-DeSchryver et al., 2008).

Even in dire situations, it is frequently still feasible to urge for change, either on own or with the support of a mediator or an advocate. Parent may do this on their own or with their help. Either to carry out the work on their own, or will need their assistance. In most cases, schools will recognize the issue and then make adjustments so that they better meet the needs of each individual child. Some schools have designed classrooms specifically for children with autism, complete with sensory integration facilities; however, many parents and guardians have voiced opposition to these classrooms, stating that they would rather have their child integrated into a neurotypical classroom (Duenas, 2017; Stoner et al., 2005).

Children who have autism spectrum disorder may find the sensory stimulation they encounter at a traditional school to be overwhelming and unpleasant. This is especially true if they attend a school that is not designed to accommodate their condition. Some individuals may find it difficult to deal with the stress of spending the day in a setting that is extremely loud, very bright, and very crowded. Some children aren't able to cope with the demands of having to wait in line, take part in physical education class, and answer to loud buzzers.

In view of the material that has been provided so far, thus, the objective of the present study is to address the topic of whether or not children who have been diagnosed with ASD will do better in conventional classroom settings or in settings that are designated as special education. The development of children's social interactions is the exclusive focus of this investigation at this juncture.

2. Methods

In order to explore the behavioural alterations that are linked with children who have ASD, the present inquiry makes use of a method that is classified as being quasi-experimental. This study looks at two groups of students with autism spectrum disorder who attend different types of schools. The first group consists of students with ASD who attend schools for special education (this group is referred to as the Experimental Group), and the second group consists of students with ASD who attend regular schools. Both groups are compared to a control group consisting of students without autism spectrum disorder (Control Group). Both groups of kids are now operating at the same intellectual level. Due to the fact that the research requires information from students who are at the same level, the purposive sampling method is used to get the data for the study. As part of the process of analyzing the data, statistical tests and calculations were performed in SPSS.

3. Results and discussion

3.1 Normality test

It is vital to have students who are all at the same level in order to accomplish the objectives of the present study and achieve progress toward those objectives. As a consequence of this, a test of homogeneity is carried out in order to ascertain whether or not the students who are the subject of the study meet the requirements.

Table 1.

Test of homogeneity of variances.

		Levene Statistic	df1	df2	Sig.
Pre_test	Based on Mean	3.645	1	18	.072

The statistical result of 3.645 demonstrates very clearly and unequivocally that all of the students who were tested for this investigation are working at the same level of proficiency in their academic pursuits.

3.2 Comparison of both groups pre-post test

Table 2.

Descriptive statistics with wilcoxon test result.

	N	Mean	Std. Deviation	Minimum	Maximum
Pre_Experiment	10	3.5000	.84984	2.00	5.00
Pre_Control	10	3.3000	.48305	3.00	4.00
Post_Experimental	10	4.7000	.67495	4.00	6.00
Post_Control	10	5.1000	.73786	4.00	6.00

The experimental group had a mean score of 3.50 on the pre-test, but in the findings of the post-test, they had a score of 4.70. This indicates that the group improved significantly. In contrast, the results of the pre-test for the control group were 3.30, and the findings of the post-test were 5.10, respectively. The fact that this result is not even really near to being identical to the mean score suggests that the standard deviation of both sets of data demonstrates that this result is pretty consistent. This suggests that the data have not been tampered with to the degree that all students who have been identified with ASD see an increase of around the same magnitude.

3.3 Statistics test of both group

Table 3.

Statistics test on both groups.

	Post_Experimental - Pre_Experiment	Post_Control - Pre_Control
Z	-2.414 ^b	-2.842 ^b
Asymp. Sig. (2-tailed)	.016	.004

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

a. Wilcoxon Signed Ranks Test.

b. Based on negative ranks.

Those students who were given a place in the experimental group ended up with a significantly lower result, as shown by a significance level of 0.04, in comparison to those students who were given a place in the control group, who ended up with a significance level of 0.016. This was the situation regardless of the fact that both groups were provided with a variety of treatments over the length of the trial.

4. Common treatment for ASD

Grey et al. (2007) suggest that it is of the utmost importance to provide exceptionalities to a student who falls anywhere on the autistic spectrum in order to meet their one-of-a-kind scholastic needs. Even while teaching kids is unquestionably the most important goal of any school, it is very necessary to ensure that the students' mental, behavioral, and physical needs are satisfied as well (Gholidahaneh et al., 2020; Coterón et al., 2020; Ferriz et al., 2016).

However, even environments that work well for one kid may not be appropriate for another youngster who is going through the same thing in the same circumstances. As a direct result, this is where Individualized Education Plans, often known as IEPs, come into play. The Individualized Education Curriculum, more often referred to as the IEP, is a written document that specifies how to adjust an educational program to a child who has special needs. This document is sometimes referred to as "the IEP." The majority of the time, it is the product of a concerted effort on the part of the parent, the educator, and any other educational experts. According to the legislation, schools are supposed to provide individualized educational programs to every single child who has been diagnosed with autism.

It's possible that the amount of time that an autistic kid spends in a classroom alongside classmates who have ordinarily developed brains might vary greatly depending on where the autistic student sits on the spectrum of autism. Some children might spend part of their day in a standard classroom and the rest in a classroom that is tailored to meet the requirements of pupils who have special needs. Some children could be obliged to spend the whole of their school day in a more traditional environment with an assistant teacher, who is also referred to as a "shadow." Others may be required to work in an environment that caters to those with special needs on a permanent basis.

A simple change to that pattern, even one that some of the youngsters may see as an interesting and novel experience, may have the potential to have severe effects (Gholidahaneh et al., 2020). The autistic pupils will be able to start preparing for the new conditions far more quickly if they are informed in advance of any changes to their routine, regardless of whether such adjustments are planned or anticipated to take place. Alterations in the classroom could take the shape of different seating arrangements, a simulated fire drill, or an activity that takes place outside the classroom.

5. Possibility of better outcome in public school

In certain situations, an educational program that seems to be acceptable at first look is really insufficient to meet the needs of the student in question. A child who has severe issues in the sensory and behavioral domains can never be successful in a system that was built for children who develop ordinarily. In a classroom consisting of children who have substantial mental or physical limitations, it is unlikely that a kid who has autism with high functioning would perform well academically.

There are instances when it is still feasible to advocate for a transformation, whether one does it on their own or with the assistance of a mediator or an advocate. Even when the circumstances are as dire as they now are, this is occasionally the case. The vast majority of the time, school systems will identify the issue and make adjustments so that they are more in line with the specific needs of children who have autism spectrum disorder (ASD).

In the current research, the authors investigate the factors that could explain why children with ASD have greater performance levels. These factors include a variety of specific circumstances that might be at play. To get things started, being organized is a talent that should be taught to people. Teachers may discover that their autistic kids have a particularly difficult time with this, despite the fact that many youngsters have difficulty maintaining a tidy and ordered environment. The teacher may provide assistance by leading the student through the process of unpacking, transitions, and packing up until the student has established a rhythm for these times. Students will learn that there is an expectation for them to maintain a nice and tidy environment if their desks are checked often. This is another reason why desk inspections are important.

It is essential to keep in mind that children on the autism spectrum do not have meltdowns on purpose in order to generate a commotion. Instead, they lose control because every one of their senses is being assaulted, and this is the only way for them to cope. Your role as a teacher requires you to maintain a presence that is both reassuring and peaceful for your students. The world is sufficiently terrible for the kid during a meltdown; the last thing they need is a teacher who is panicked or furious to add to the mix.

When speaking to a kid who falls somewhere on the autistic spectrum, some modes of communication may not be productive; similarly, certain forms of discipline may not be productive. Children with autism have a propensity to misinterpret negative punishment, but they react

considerably better when it is presented in a positive light. Talk to the kid's parents about the techniques of discipline and punishment that they found to be the most successful for their child.

Students diagnosed with Autism Spectrum Disorders (ASD) may experience significant levels of stress, which is especially common in social settings such as schools (Chauhan & Chauhan, 2006). It is essential for educational teams to detect the influence of a student's stress and anxiety in the event that the kid displays violent or explosive conduct. Students may have less anxiety if they are well prepared for new experiences, such as through creating social tales. It is possible to strengthen a student's capacity to manage excessive behavioral responses by instructing them in social and emotional ideas via the use of methodical teaching techniques such as The Incredible 5-Point Scale or other cognitive behavioral tactics.

Children on the autism spectrum need more time to understand language, which is perhaps one of the most significant things that all instructors need to know about autism in the classroom. If the youngster gives you a blank gaze after you give them vocal guidance, realize that they are probably still digesting what you have said. You may be of assistance to him by restating the instructions using the same language. Changing the terms will not prevent him from having to start the procedure over from the beginning again.

6. Conclusion

The results of this study show that children who have ASD would adapt as well as they possibly can to the environment of special education provided, it is subjected to certain critical conditions. Another component that adds substantially to the establishment of their needs is the existence of an environment that is very encouraging and ideal. The findings of the current research do not shed light on whether pupils fare better academically in regular school or in special education in general; rather, the present investigation focus only on how the students' interactions with one another have transformed over time. This is because the current research focuses solely on how the students' interactions with one another have progressed.

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