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Challenges and Possibilities for the Inclusion of Students with Autism Spectrum Disorder - ASD in the School Environment

Challenges And Possibilities for the Inclusion of Students With Autism Spectrum Disorder - Asd In the School Environment.

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SUMMARY

The inclusion of students with Autism Spectrum Disorder (ASD) in the school environment is a relevant and complex topic that has been the subject of study and discussion in the field of education. The objective of this study is to analyze the challenges and possibilities of including students with ASD in the school environment, seeking to identify effective strategies to promote the comprehensive development of these students. The methodology used was a qualitative approach, based on a literature review and analysis of inclusion experiences and strategies. The theoretical framework was based on the contributions of authors specializing in special and inclusive education. The most important findings highlighted the need for adequate teacher training, adapted pedagogical resources, and a school environment that fosters socialization and learning. Furthermore, the role of the multidisciplinary team and family involvement should be valued. In conclusion, this study highlights the importance of an inclusive and personalized approach for students with ASD, seeking to promote their comprehensive development and full participation in the school environment.

Keywords: Inclusion. Autism. Assistive Technology.

ABSTRACT

The inclusion of students with autism spectrum disorder (ASD) in the school environment is a relevant and complex topic that has been the subject of study and discussion in the area of education. The objective of this study is to analyze the challenges and possibilities of including students with ASD in the school environment, seeking to identify effective strategies to promote the integral development of these students. The methodology used was a qualitative approach, based on a literature review and analysis of experiences and inclusion strategies. The theoretical basis was based

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on the contributions of authors specialized in special and inclusive education. The most important results pointed to the need for adequate teacher training, adapted pedagogical resources, and a school environment that favors socialization and learning. In addition, the an appreciation of the role of the multidisciplinary team and the involvement of the family. In conclusion, this study highlights the importance of an inclusive and personalized approach for students with ASD, seeking to promote the integral development and full participation of these students in the school environment. **Keywords:** Inclusion. Autism. Assistive Technology.

INTRODUCTION

The school inclusion of students with Autism Spectrum Disorder (ASD) in the environment school has been a widely debated topic in the field of education and public policy. The Brazilian legislation, through the Brazilian Inclusion Law (Law No. 13,146/2015) and the Policy National Special Education in the Perspective of Inclusive Education, reinforces the need for ensure access, retention and development of these students in regular schools. In However, despite regulatory advances, challenges persist that hinder the implementation of a truly inclusive education.

Among the main challenges faced, the lack of adequate training of teachers, the scarcity of adapted pedagogical resources and the need for a school environment that favor the socialization and learning of students with ASD. In addition, understanding the diversity within the autistic spectrum requires differentiated educational strategies, considering the specificities of each student.

On the other hand, several possibilities have been explored to strengthen inclusion, such as the use of active methodologies, the implementation of assistive technologies and the promotion of inclusive pedagogical practices. Valuing the role of the multidisciplinary team and the involvement of the family in the educational process are also fundamental to the success of inclusion.

In this context, this article aims to discuss the challenges and possibilities the inclusion of students with ASD in the school environment, analyzing the main difficulties and possible strategies for academic and social development. The theme of school inclusion students with Autism Spectrum Disorder - ASD is of utmost importance, considering the growing number of diagnoses and Brazilian legislation that guarantees the right to inclusive education. The present work is underway in the subject Learning and Development Difficulties Psychosocial I and II of the Master's degree in Educational Sciences. This study is justified by the need to understand, in light of the authors researching this topic, the main obstacles faced regarding the inclusion of students with ASD and identify effective pedagogical practices that favor the integral development of students with autism spectrum.

Using a qualitative approach, we seek to reflect on experiences and strategies

that can contribute to a more equitable and accessible education.

METHODOLOGY

The research was qualitative, allowing an analysis of the challenges and related strategies the inclusion of students with autism in the school environment, based on perceptions and experiences of those involved in the educational process. This was an exploratory and descriptive study with the aim to understand the pedagogical practices and challenges faced by teachers in school inclusion. Therefore, a semi-structured questionnaire was carried out aimed at teachers in order to collect their perceptions, practices and difficulties in the inclusion process. As to the site, the research was carried out in regular schools that serve students with ASD in the cities of Santa Luzia do Paruá, Godofredo Viana and Zé Doca. The collected data were analyzed seeking to be faithful to the interpretation and obey the ethical principles of research.

THE PROCESS OF INCLUSION OF STUDENTS WITH AUTISM

The school inclusion of autistic students is an increasingly debated topic in the field of education. With the expansion of inclusion policies and the advancement of research on Attention Deficit Disorder, Autism Spectrum Disorder (ASD), schools have sought strategies to ensure quality education for these students, respecting their particularities and promoting a learning environment accessible.

In this sense, authors such as Glat (2007), apud Rossetto and Marcon (2024), highlight that: “inclusive education is characterized by a school that allows all students to remain in school students, where discriminatory concepts are replaced by the identification and removal of barriers for learning to occur.” Thus, a school that meets inclusive ideals must be based on the concept that students must be respected in their differences and that school must provide means and strategies that stimulate the potential of its students, as well as its full development.

According to Maia et. al (2019), the number of diagnoses of people with autism has increased significantly, considering that in 2009 in Brazil, the number of diagnoses per individual, reached approximately 500 thousand, and currently it is estimated that Brazil has around of 2 million people. This data is important when reflecting on inclusion, as it requires a great responsibility from a social and pedagogical point of view, since it is essential to have set of efforts and search for resources that meet the real needs of these students.

Despite advances in scientific research and the dissemination of results in



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form of pertinent information on the subject, it is still clear that there is a long way to go traveled so that people diagnosed with Autism Spectrum Disorder can be in fact, included in all segments of society.

One of the main challenges of including autistic people in the classroom is the need to curricular adaptation. Many students with ASD have different ways of learning, may have difficulties in communication, social interaction and emotional regulation. Therefore, it is essential that teachers and managers adopt different methodologies, such as teaching structured, the use of visual materials and positive reinforcement, to make teaching more effective and inclusive.

Furthermore, teacher training plays an essential role in the success of inclusion. Training on autism and its specificities allows educators better understand students' needs and know how to deal with daily challenges, such as sensory crises and socialization difficulties. Support from specialized professionals, such as psychopedagogues, psychologists and other professionals, occupational therapists, also contribute significantly for the development of students with ASD.

Another important factor is raising awareness within the school community. Inclusion does not depends only on pedagogical adaptations, but also on a welcoming environment, where colleagues class and other school professionals understand and respect differences. Projects that promote empathy and respect for diversity help to build a more inclusive and fair school for everyone.

Finally, it is essential that public policies guarantee adequate resources and support for that inclusion is effective. Multifunctional rooms, adapted materials and support teams are fundamental for autistic students to have access to quality education and to be able to fully develop your skills.

The inclusion of autistic people in the classroom is not only a right guaranteed by law, but a commitment to building a more just and egalitarian society. When we respect differences and offer equitable opportunities, all students benefit, making the school environment a space for learning and growth for all.

ACTIVE METHODOLOGIES IN TEACHING STUDENTS WITH ASD: STRATEGIES FOR INCLUSIVE AND MEANINGFUL LEARNING.

The inclusion of students with Autism Spectrum Disorder (ASD) in education regular requires the adoption of pedagogical practices that respect their particularities and promote a meaningful learning. Assistive technology is still a recent mechanism, and aims to fulfill a



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important role in the learning process of people with disabilities, enabling greater

independence, improved communication, and inclusion. About this:

Assistive Technology is an area of knowledge, with an interdisciplinary characteristic, which encompasses products, resources, methodologies, strategies, practices and services that aim to promote functionality, related to the activity and participation of people with disabilities, impairments or reduced mobility, aiming at their autonomy, independence, quality of life and social inclusion (BRAZIL 2007, Minutes VI).

From the perspective of Rossetto and Marcon (2024), assistive technology is a mechanism of support for the development of learning, in this way: “assistive technology emerged as means of making people's lives easier [...] combined with a playful perspective as a teaching strategy and pedagogical”.

In this context, active methodologies emerge as effective strategies to make the more accessible, dynamic, and engaging teaching. Unlike the traditional model, in which the student assumes a passive role in the acquisition of knowledge, active methodologies stimulate the participation, autonomy and the construction of learning in an interactive way.

One of the main challenges faced by students with ASD is the difficulty in adaptation to the conventional teaching model, which often does not consider their needs sensory, cognitive, and social skills. Strategies such as structured teaching, based on the Theory of Robert Schopler's learning methods can be highly effective for these students. This method organizes the learning environment, uses visual resources and establishes clear routines, providing predictability and reducing anxiety, a common factor among autistic people.

Furthermore, gamification has proven to be a powerful tool in teaching students with ASD. The use of games and challenges stimulates motivation and promotes learning through rewards and positive feedback. Educational software, interactive applications, and activities Playful activities are examples of how this strategy can be applied to develop skills cognitive and social activities in a pleasurable way.

Some studies point to a series of software that were produced with the aim of facilitate the schooling of children with ASD. For example, there are two software programs, the first of which is Aiello, a fun computer game characterized by a squirrel whose function is to help the child relates names to images of objects, contributing to the acquisition of vocabulary autistic children, facilitate language promotion. The second software is SCALA, which presents some a set of interesting functions that allows animation, image import, editing sounds, save, manage and export files, as well as allowing you to insert your own images (CARNEIRO, et al 2015, apud Rossetto and Marcon (2024).

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Another relevant active methodology is project-based learning (PBL), which encourages students to solve real problems and work together to achieve a goal. In the case of autistic students, this approach can be adapted to respect their learning difficulties. social interaction, allowing collaboration in small groups and the use of visual supports to facilitate communication.

The use of assistive technologies also complements these methodologies, providing resources tailored to the needs of students with ASD. Tools such as alternative communication software, interactive platforms and digital visual materials help to make teaching more accessible and personalized.

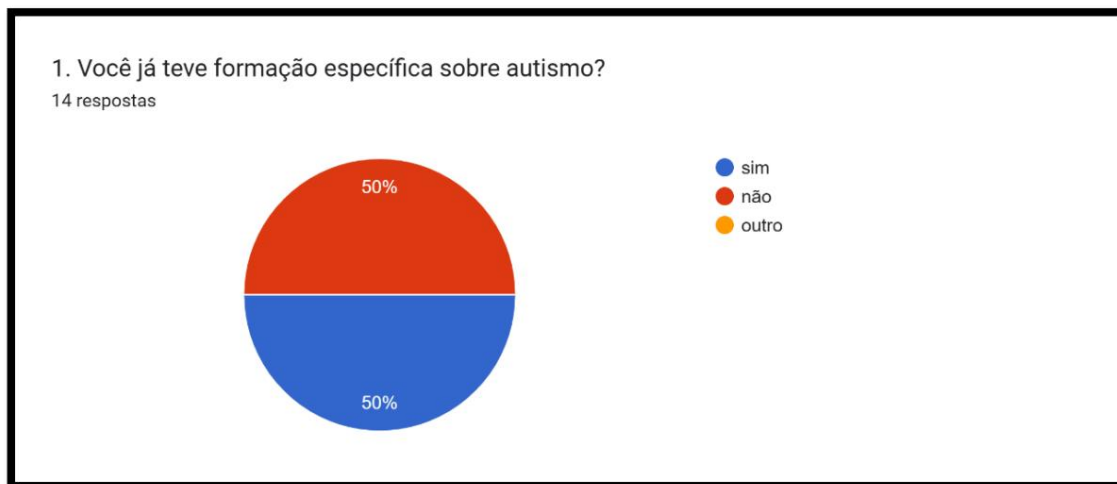
However, for these methodologies to be effective, it is essential that teachers receive adequate training and that the school provides pedagogical and technological support. The implementing these strategies requires a careful look at the individualities of students and a flexible approach that can be adjusted according to your needs.

In short, active methodologies represent a significant advance in the inclusion of students with ASD, as they offer more dynamic, interactive and learning opportunities adaptable. When applied appropriately, these strategies contribute to an environment more welcoming school, respecting the particularities of the autistic student and ensuring their participation effective in the teaching-learning process. In this way, education becomes, in fact, a space of equity and development for all.

RESULTS AND DISCUSSION

The research was carried out with teachers from the city of Santa Luzia do Paruá, Zé Doca and Godofredo Viana, considering that the researchers live in these cities, which made the carrying out the Study. The questionnaire had a succinct proposal, therefore, three questions were asked objective and one discursive, in order to allow respondents to give reliable answers according to their reality experienced in the inclusive educational context. Thus, the focus was on three categories important: 1. Training: with the aim of understanding the academic reality of the professionals who deal with autistic students. 2. Challenges: Where we sought to identify the challenges faced by teachers of students with autism in schools. 3. Strategies: Investigate pedagogical practices used by teachers in teaching autistic students. And finally, an essay question, in order to provide greater freedom of expression regarding teachers' views on education inclusive. Therefore, the following results were obtained:

GRAPH 1. Training



The search for training, especially in the field of Inclusive Education, is important so that professionals can offer better quality services and acquire skills and skills to be added to the experiences accumulated over time. Dealing with students, especially those with autism, need increasingly qualified professionals specific. In this sense, the professionals interviewed show that half have this purpose. Cunha, highlights that:

It is essential to think of school as a locus of teacher training, as it is a space that enables the construction of changes in pedagogical practices, in curriculum, in teaching and in the learning of students, including those with disability, global developmental disorders and high skills/giftedness and also opens up ways for the educator to add the investigation into their know-how (CUNHA, 2013, p.19).

In this sense, the process of school inclusion also involves the training of professionals who deal with this audience on a daily basis. From the graph, we can see that qualified teachers are not yet unanimous, that is, we are not yet at a level considered ideal, because the teacher of students with autism has the challenge of promoting the development of skills to deal with challenging behaviors, work on communication and socialization, implement support and adaptation strategies promoting inclusion and full participation.

In short, continuing education is essential to ensure that professionals are prepared to meet the complex needs of individuals with ASD, promoting a effective, inclusive and quality intervention.



Graph 2 shows that the majority of teachers, 50%, consider this to be the biggest challenge faced when teaching students with autism is the lack of knowledge in the area, to be able to understand the needs of students. Freitas (2006, p.173) highlights that “teacher training must have programs/content that enable the training of professionals capable of developing skills to act in different situations”, as the diversity of the students considering the complexity of pedagogical work.

Quality continuing education must be offered to teachers with the support of school management through theoretical training, practical activities and exchange of experiences, which provide teachers with different experiences and reflections, so that they feel motivated to work differently with their students.

CHART 3. Strategies



It can be seen in the graph above that 53.8% of respondents report that they sometimes use some strategy, or adapts the content to include students with autism. The child with autism have difficulties, especially in adapting to the context to which they belong, in schools they need

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environments and materials that assist in their cognitive and motor development. Corroborating with the theme, Bruno emphasizes that:

The inclusive classroom proposes a new pedagogical arrangement: different dynamics and teaching strategies for all and complementation, adaptation and curricular supplementation when necessary. The school, the classroom and the teaching strategies must be modified so that the student can develop and learn (BRUNO, 2006, p.16)

It can be said that the teacher needs creativity to adapt activities based on from the moment you notice the student's difficulty in the classroom. Because strategies and adaptations didactics help in the learning process of students with autism. These activities bring satisfactory results in learning, avoid behavioral irritations that harm the learning process. Many of these materials can be produced by teachers or pedagogical coordination, seeking to first understand the needs of each student, contextualizing with the content studied.

At this point regarding the analysis of the results of the discursive questions, the following stand out: important perspectives to be able to respond to the desired objectives. The Teachers: What could be improved at school to promote inclusion? Responding to this questioning, the interviewees' positioning was highlighted, which will be used with the letter P followed by the order of answers as per the questionnaire in Google Forms:

P1	An exclusive class for students with special needs.
P2	Training sessions with all school staff
P3	training in schools for teachers
P4	
P5	Support in teacher training, supervised guidance, support with pedagogical resources, collaboration with families.
P6	Improvement courses.
P7	Continuing and specialized training with teachers and the didactic method of teaching and learning for this audience
P8	Room structured to work with these young people.
P9	Training for treating students in the classroom, so that they could remain included with the rest of the class and active with the tools developed by the faculty for their hyperactivity.
P10	Training for all teachers on the subject.
P11	But lectures and dialogue
P12	To promote the inclusion of students with autism in schools, some improvements are necessary, such as: Physical Environment 1. Calm and organized spaces: Create quiet areas free from excessive stimulation to help students with autism feel more comfortable. 2. Lighting and colors: Use soft lighting and pastel colors to reduce sensory overload. 3. Seating and furniture: Provide seating and furniture adapted to meet students' individual needs. Planning and Structure 1. Routines and schedules: Establish clear and predictable routines and schedules to help students with autism feel more secure. 2. Individualized Plan: Develop individualized plans for each student with autism, considering their specific needs and goals. 3. Effective Communication: Establish effective communication between

	<p>teachers, parents, and students to ensure consistency and continuity of support. Support and Resources 1. Trained Teachers: Provide ongoing training and support to teachers and staff on autism and support strategies. 2. Support Assistants: Provide support assistants to assist students with autism with specific activities or in times of need. 3. Technological Resources: Use technological resources, such as tablets or specialized software, to support learning and communication. Social Inclusion: 1. Inclusive Activities: Develop activities that promote social inclusion and interaction between students with and without autism. 2. Support Buddies: Establish "support buddy" programs to help students with autism develop social relationships. 3. Events and Celebrations: Include students with autism in school events and celebrations, adapting them to meet their needs. These are just a few suggestions for improving the inclusion of students with autism in schools. It is essential to remember that each student is unique and may require personalized approaches.</p>
P13	I don't have
P14	Training on how to teach

From the analysis of the responses of the interviewees in this study, it was possible to verify that teachers have been encountering difficulties in implementing the national education policy special, from an inclusive perspective. Because, even with initial training, continuing education offered to these teachers does not meet expectations, causing them to experience difficulties at the time of working with students with ASD.

When analyzing the data, the answer regarding P1 leaves a concern and deserves to be highlighted. here in this study, because when *mentioning "An exclusive class for students with special needs special"*, the interviewee's distance from the proposal of special education is noted and inclusive, which aims to include and not segregate, such a statement takes us back to an old model and outdated where people with disabilities were considered incapable of learning, therefore, should be excluded from social life and from the common classes.

Another relevant point in the research is the teachers' need in relation to teaching qualification, where they emphasize that a set of knowledge is necessary and availability of resources for the students' teaching process. From this perspective, Carvalho highlights what:

To include all students in regular classes, it is essential to invest in improving of schools, eliminating architectural barriers, creating an accessible environment, invest in educational technologies so that schools can better serve their students with and without disabilities (CARVALHO 2005, p. 7).

When talking about an appropriate environment to develop activities with children with TEA, is not referring to an exclusive space for them, but to a space integrated with materials, equipment and adapted structure that allow the development of this student. The lack this space limits the teacher's performance and consequently also limits the development of children.

FINAL CONSIDERATIONS

The inclusion of students with Autism Spectrum Disorder (ASD) in classrooms represents a significant challenge in Teaching Units, regardless of whether they are public or private.

As mentioned earlier, these challenges are underpinned by several factors, including the lack of specific training for educators and the need to adapt educational systems with active methodologies and other mechanisms that truly guarantee inclusion. It is

It is essential that the school curriculum be adapted to ensure the schooling of all students with ASD.

There is a significant increase in students with ASD in Brazilian schools, perhaps this is due to the fact that families have increasingly accepted and

have understood that the autistic child's place is wherever he or she wants, including at school, and with guaranteed rights. What has worried us in this process is the system's ineffectiveness educational system that often turns schools into veritable deposits for children.

As education professionals, we need support to help those in need, not only with technical and scientific support, but also with words of encouragement and comfort, in this moment we realize the importance of continuing education and how much the pedagogical meetings that should be focused exclusively on pedagogical issues are necessary.

REFERENCES

- BRUNO, Marilda Moraes Garcia. Early childhood education: knowledge and practices of inclusion. 4th ed. Brasília: MEC Education Secretariat. Available, <http://portal.mec.gov.br/arquivos/pdf/introducao.pdf>. in: *Special*, 2006. Accessed on: February 24, 2025.
- CARVALHO, Rosita Edler. Inclusive Education: Dotting the I's and Crossing the T's. 3rd ed. Porto Alegre: CUNHA, Eugênio. Autism at school: a different way of learning, a different way of teaching. Rio de Janeiro: Wak Editora, 2013.
- FREITAS, Soraia Napoleão. Teacher training in inclusive education: building the foundation for the entire process. RODRIGUES, David (ed.). Inclusion and education: twelve perspectives on inclusive education. São Paulo: Summus, 2006.
- HUMMEL, Eromi Izabel. Training of teachers in multifunctional resource rooms for the use of assistive technology. 2012.
- MAIA, CS; MENEZES, KMC; TENORIO, FCA; JUNIOR, JRAQ Maciel, G. Mediation, 2005.
- ROSSETTO, Tailine; MARCON, Karina. The potential of Assistive Technology for the inclusion of children with Autism Spectrum Disorder. *Electronic Journal of Education*, v. 18, n. 1, p. e515681-e515681, 2024.
- E. S. Autism Spectrum Disorder and Folic Acid Supplementation before and during Pregnancy. *Brazilian Journal of Psychiatry*. vol.68 no.4 Rio de Janeiro Oct./Dec. 2019. Available at: http://www.scielo.br/scielo.php?pid=S0047-20852019000400231&script=sci_arttext. Accessed on January 20, 2020.