

**UNIVERSIDADE DE CAXIAS DO SUL**  
**ÁREA DE CONHECIMENTO DAS HUMANIDADES**  
**CURSO DE LICENCIATURA EM LETRAS – INGLÊS**

**THE IMPORTANCE OF TEACHING ENGLISH TO AUTISTIC CHILDREN**

**CAXIAS DO SUL**

**2022**

**NATÁLIA FLORES DA SILVA**

**THE IMPORTANCE OF TEACHING ENGLISH TO AUTISTIC CHILDREN**

Trabalho de Conclusão de Curso de  
Licenciatura em Letras - Inglês, pela  
Universidade de Caxias do Sul.

Orientadora: Prof. Dr. Sabrina  
Bonqueves Fadanelli

**CAXIAS DO SUL**

**2022**

**NATÁLIA FLORES DA SILVA**

**THE IMPORTANCE OF TEACHING ENGLISH TO AUTISTIC CHILDREN**

Trabalho de Conclusão de Curso de  
Licenciatura em Letras – Inglês, pela  
Universidade de Caxias do Sul.

Caxias do Sul, 7 de dezembro

Banca Examinadora

Prof. Dra. Sabrina Bonqueves Fadanelli  
Orientadora  
Universidade de Caxias do Sul

Prof. Dra. Samira Dall Agnol  
Universidade de Caxias do Sul

Profa Ma. Maria Valésia Silva da Silva  
Universidade de Caxias do Sul

## **ACKNOWLEDGMENTS**

First, I am thankful to God, who gave me strength in my darkest times and did not let me give up. I also thank the University for the opportunity to present this study and to my supervisor, Professor Sabrina, who cared about this semester with fire, because the fire inside her burned brighter than the fire around her.

I am thankful for my mom and family for believing in me more than myself, my friends who care about my mental health and my classmates who are going to graduate with me, who are amazing girls.

A special thanks to the people who worked with me, since they have patience towards me and my endless semester and make me laugh every day, making my life less lonely.

*"Wisest is she who knows she does not know."*

***Jostein Gaarder, Sophie's World***

## ABSTRACT

Autism affects how a person acts, learns, and expresses themselves. Since there is an increase in the numbers of children being diagnosed with autism around the world, it is a fact that English teachers will face autistic students in the classroom at any time. This paper aims to discuss the importance of teaching this new population of students, focusing primarily on how the language is constructed in the autism spectrum and how teachers can assist children in their development working along in English classes. In view of the fact, that is a new but solid reality in the regular schools in Brazil, therefore the curriculum and classes need to be created focusing on the interaction between typical and atypical students. The strategies and methods to teach autistic children still have a considerable gap in literature, indicating how teachers have a long way to overcome these deficits in classes.

**Keywords:** autism spectrum disorder, teaching English language, importance to teaching English to autistic children

## RESUMO

Autismo afeta como uma pessoa age, aprende e se expressa. Devido ao aumento de crianças sendo diagnosticadas com o espectro autista ao redor do mundo, é real o fato dos professores de língua inglesa encontrarem alunos autistas há qualquer momento. O objetivo deste Trabalho de Conclusão de Curso é discutir a importância de ensinar esse novo grupo de estudantes, focando primeiramente em como a linguagem é construída pelas pessoas diagnosticadas com o espectro autista e como os professores podem ajudar essas crianças em seu desenvolvimento durante com as aulas de inglês. Tendo em vista que essa é uma realidade nova, mas sólida nas escolas regulares do Brasil, os currículos e aulas precisam ser criados com o objetivo da interação entre típicos e atípicos alunos. As estratégias e métodos para ensinar crianças autistas ainda são uma lacuna nas literaturas, indicando que os professores ainda possuem um longo caminho para superar esses problemas nas aulas.

**Palavras-chaves:** transtorno do espectro autista, ensinando língua inglesa, ensino de língua inglesa para crianças autistas

**TABLE OF CONTENTS**

<b>1. INTRODUCTION.....</b>	<b>9</b>
<b>2. AUTISM: A SPECTRUM DISORDER .....</b>	<b>13</b>
2.1 THE THREE FUNCTIONAL LEVELS OF AUTISM .....	15
2.2 DSM-5 CRITERIA FOR AUTISM SPECTRUM DISORDER .....	16
<b>3. LANGUAGE LEARNING IN THE SPECTRUM.....</b>	<b>20</b>
3.1 ENGLISH AS A SECOND LANGUAGE IN THE SPECTRUM.....	22
3.2 TEACHING ENGLISH AS A SECOND LANGUAGE TO AUTISTIC CHILDREN .....	21
<b>5. CONCLUSION .....</b>	<b>28</b>
<b>6. REFERENCES .....</b>	<b>29</b>



## 1. INTRODUCTION

Language is the main key for people to understand the world and is fundamental for human communication. Language can allow civilization to expand boundaries of knowledge and allow hundreds of people to connect to each other. We are surrounded by language during every moment of our lives, we use it to communicate our thoughts and feelings, to connect with others, identify ourselves with our cultures and to understand the world around us (MARIAN; SHOOK, 2012).

The language learning process requires coordinated interactions in the brain, the early experience in life might result in differences in neural connection between two languages at the same time. The input happens from birth and occurs while neural networks are still developing. The problem lies when late learning takes place after these networks are already established (BERKEN et al, 2016).

Over the past few decades, technological advances have allowed researchers to study deeper and investigate how bilingualism interacts with the cognitive and neurological systems. One of these studies was made by the psychologist Ellen Bialystok and Michelle Martin-Rhee in 2004. The study concludes that bilingual children were more successful at selecting objects by shape and color versus the monolingual individuals. The monolingual learners struggled when the second characteristic (sorting by shape) was added, this suggests that being bilingual can help in the improvement of the brain's command center (TRAUTNER, 2019). Therefore, early life experiences can have a huge impact on the brain (NEWMAN et al, 2002; apud JASINSKA; PETITTO 2013).

Different studies of brain trauma have shown that *“children who sustain brain injury in the perinatal period can overcome their deficits, whereas adults often cannot”* (BATES, 1999 apud BERKEN, 2016, p. 1165). This suggests that brain reorganization can be better when language learning occurs early in development (BERKEN et al, 2016). As the learning process acts simultaneously with the development, the brain can change the physical structure and functional organization, allowing it to adapt to its environment (HERB, 1949 apud JASINSKA; PETITTO, 2013).

There is no doubt that learning a foreign language opens doors that would not be opened without it, since bilingual individuals have access to resources, people, places and things differently from monolinguals.

Young bilingual children who acquire a second language are more likely to have a better understanding about his own mother language and the different cultures around the globe, but when it comes to the process of teaching a second language to autistic children, things must be reconsidered. Since, there is relatively little or knowledge research the linguistic environment available to children with autism spectrum disorders (ASD) and whether input contributes to their later vocabulary (BANG; NADIG, 2015).

The major thing to ponder over is the delay of language acquisition, because it is the most common characteristic present in this disorder. Several autistic children never develop a meaningful speech and for those who do, the speech differs from normal children in various ways, such as unusual intonation, severe difficulties in social use of language (pragmatics), echolalia (repetition of what is said) and pronoun reversal (VOLKMAR; PAULS, 2003). Children in the spectrum have difficulties in realizing the results of their communication actions, therefore they may experience dysfunctions in the spoken language (GAIATO, 2021).

However, when autistic children are immersed in applied behavior analysis therapy, they can be placed in a neurotypical classroom system (SANCHACK; THOMAS, 2016) and the daily mention in the media about autism has resulted in more demand by policy makers and funders for evidence to support treatment approaches used in health care (LORD; BISHOP, 2015). So, now is an important period in the history of autism, because the number of children with autism is increasing dramatically (LORD; BISHOP, 2015).

For that reason, many different studies and research about language development in people with autism spectrum may have surged, especially when language and cognition are major topics of interest in this area (BARRERO, 2017). For example, the study conducted by Aarna Nadig, which provided important information on environmental factors implicated in language development in the autism spectrum.

The research concludes that children with autism are exposed to an environment as rich in lexical information as typically children, indicating that children with ASD can utilize maternal input for their vocabulary development (BANG; NADIG, 2015), indicating they can learn along with their colleagues in a regular school.

In Brazil, the law nº 12.764, that established the “*National Policy for the Protection of the Rights of Persons with Autism Spectrum Disorder*”, settled the autistic individuals to be considered officially persons with a disability entitled to all country inclusion policies, including the ones designed for Education (MEIRELLES, 2013).

Therefore, now autistic children can have access to regular education in public schools. According to Andrea Bonoli (apud MEIRELLES, 2013) autistic peers need to have these interactions with typical students, because they have problems with social interactions and coexistence, so to put them with others and take them out of their comfort zone can help in the improvement of their social skills.

The complexity lies in how the language is developed in the autism spectrum disorder, therefore the teachers who are working in public or private schools may struggle when facing these students in class. Language abilities that have a major impact on the field of ASD are lexical-semantic skills, because researchers can report that vocabulary seems to be an area of strength for children in the autism spectrum compared to other linguistic domains (BARRERO, 2017).

There are some methods from special education and behavioral psychology whose goals of treatment include reduction of these problems of behaviors that interfere with the learning of communication (VOLKMAR; PAULS, 2003). Learning about these methods and strategies and how to apply them in an English class to autistic children is the main objective of this paper, since it can be a different challenge that a teacher may face, especially when the mother tongue of the autistic children can be a problem.

Even non-verbal young people with autism can receive benefits from having contact with a second language. For example, the teacher can use augmentative communication systems such as the Picture Exchange Communication System (PECS) or more sophisticated speech generating devices that use picture symbols to allow children to ask questions and make choices, or any other technology augmentative communication system (LORD; BRUGHA; *et al*, 2020).

Since this paper is being developed through a literature review, it will provide a description of different researchers in relation to the theme of this paper.

According to Fink (2014) the definition of a literature review is based on researching in books or articles and any other sources relevant to a specific topic. The literature review of this paper was designed to provide an overview of sources that have been explored while researching about how autistic learn a language and to demonstrate how the research fits in the education area.

The references used in this paper are composed of articles, theses and books which examine how important it can be to an autistic child to learn English. In addition, the specific objectives that this paper will embrace are:

- 1) Research about the concept of autism and how the language is developed on autistic children.
- 2) Highlight the benefits of learning a second language for autistic learners.
- 3) Indicate English language teaching strategies.

Learning a foreign language is a complex phenomenon in many aspects and is even more difficult with a disability disorder associated (ARAN, 2017). This paper may assist teachers in teaching ASD students on the process of acquiring a new language, specify English as a second/foreign language, since some of the spectrum characteristics may affect the learning. The increase in the population of children with autism, the need for higher standards in education requires an interdisciplinary approach, including teachers and psychologists to monitor the process (GOLSHAN; et al, 2018).

## 2. AUTISM: A SPECTRUM DISORDER

Autism spectrum disorder (ASD) is a broad term used to describe a group of neurodevelopmental conditions, characterized by differences in communication and social interaction (CHERNEY; SCHULMAN, 2021). At this present moment, autism is recognized as one of the pervasive developmental disorders (PDD) where the definition was used in the *International Classification of Diseases 10th edition*, and the *Diagnostic and Statistical Manual 4th edition* (VOLKMAR; PAULS, 2003).

The concept of autism suffered several changes since its first description in 1943, when the psychiatrist Leo Kanner described it as a disorder in children who had problems relating to other children and a high sensitivity to changes in their environment. Autism is a neuropsychiatric disorder marked by severe problems in social interaction (VOLKMAR; PAULS, 2003) it is defined in the psychiatric literature as a neurodevelopmental disorder characterized by failure of a person to communicate and interact socially with others, where the person commonly demonstrates restricted, repetitive and stereotyped patterns of behavior (ALPERT, 2021).

In the autism spectrum disorder (ASD), the human face is an object of little interest, therefore it is presumed that autistic children are not able to think about the intentions, desires, feelings, and beliefs of other people and because of that, they have difficulties in having a social interaction. For instance, delays in the development of language are the most common condition, several children never speak at all (VOLKMAR; PAULS, 2003). As they age, they might develop language skills at a rough speed. If there's a particular topic where they have an interest, they might develop a very strong vocabulary for talking about that one topic, but they might have difficulty communicating about other things (CHERNEY; SCHULMAN, 2021).

Autism being a spectrum disorder, can be presented with a broad range of severities. In the most severe form, autism can incapacitate an individual to live alone, where the person will need supportive care for life-long. In the milder form, autistic individuals can lead productive lives, because they have learned coping strategies (ALPERT, 2021). Essential social skills do appear over time, but sometimes even the highest-functioning individuals have noticeable difficulties in the social world (VOLKMAR; PAULS, 2003).

The diagnosis of autism is based on clinical observation; no biomarkers have yet been found to assist with making the diagnosis, which is almost always made during childhood (ALPERT, 2021). Social deficits, delays in spoken language and joint attention are the most notable characteristics to raise concern in young children (SANCHACK; THOMAS, 2016). Epidemiology data concludes that ASD is more prevalent in males than females, but the specific factors that proves this difference have not been determined (BARRERO, 2017).

The changes in routine are often an outstanding challenge for autistic children, Kanner (apud VOLKMAR; PAULS, 2003, p. 1133) noted that autistic children have difficulty in dealing with the changes in situations or routine, therefore these difficulties seem to become more prominent after childhood, occasionally posing some difficulties for diagnosis. Children with ASD also demonstrate stereotypic movements, such as hand flapping, toe walking or finger flicking, (SANCHACK; THOMAS, 2016) they might also show signs of hyperlexia, which involves reading beyond what is expected of their age, even sometimes children on the autism spectrum might learn to read earlier than neurotypical individuals (CHERNEY; SCHULMAN, 2021).

The diagnosis of autism *“is found in individuals throughout the world and has no specific propensity for any race, culture or economic status.”* (ALPERT, p. 701, 2021) The disorder was even once thought to be a rare condition, but now it can be recognized as common among the new generation, probably because of the increase of social awareness and mandatory availability of treatments (SANCHACK; THOMAS, 2016). In view of the fact that, ASD may co-occur with many other disorders, including attention-deficit/hyperactivity disorder, intellectual disability, language delay and genetic syndromes (LORD; BRUGHA; *et al*, 2020).

The initial study began with Leo Kanner in 1943 has also been investigated by Hans Asperger in 1944, and those two researchers have been expanded from empirical investigations to obtain the concept that exists today (ARAN, 2017). However, it was not until the 1970s that Rutter and his collaborators established the basic criteria for the diagnosis of autism; these criteria have become the basis for the current definition of the disorder. Later, in the 1990's, a collaborative consensus on the definition of the spectrum disorder was reached (PÉREZ, 2000 apud ARAN, 2017). Nowadays, the term includes previously separate disorders under a single definition.

## 2.1 THE THREE FUNCTIONAL LEVELS OF AUTISM

Autism affects how a person acts, learns and expresses themselves, but even this group of individuals can share symptoms in common, but each person is different and their strengths and difficulties. Therefore, there are three levels of autism spectrum disorder that are described in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) (RUDY, 2020). The DSM-5 outlines the criteria of diagnosis based on functioning in two domains: social communication and restricted interests/repetitive behaviors. These criteria predict that autistic individuals need to have benefit from support, but there is a wide range of differences in support needs (LOVERING, 2022). These three levels of autism exist to clarify the amount of support an autistic person might require (LOVERING, 2022) and help the doctors diagnose and prescribe therapies for the unique needs of their patients (RUDY, 2020). Autistic individuals can be fluent conversationalists and might want only occasional help for interpretation some social cues, on the other hand others can be nonspeaking, highly sensitivity to light and sounds, use augmentative and alternative communication (AAC) tools, such as, picture symbols or electronic devices to express their thoughts (LOVERING, 2022).

A person can also have different levels across the two domains, because each of those criteria has its own degree of support (LOVERING, 2022). For example, a person can have the diagnosis of level 2 for social interaction and level 1 for repetitive behaviors. The following has a brief explanation of the differences between the three levels of support:

- 1. Level 1 - Requires Support:** a child who is diagnosed with level 1 requires the least amount of support. (LOVERING, 2022). Children with level 1 ASD may demonstrate a difficulty communicating properly with others. For example, they may not say the right thing at the right words at the right time or be able to read social cues and body language. They may also have problems with organization or planning, which prevent them from being as independent as other children. (RUDY, 2020) An autistic person at level 1 in social communication might need therapy to enable them to understand social nuances and the therapy for level 1 restricted and repetitive behaviors can help an autistic person learn self-regulation strategies (LOVERING, 2022).

- 2. Level 2 - Requires Substantial Support:** children with level 2 may demonstrate more obvious problems with verbal and social communication than those diagnosed with level 1. They are engaged in repetitive patterns of behaviors, making it difficult to interact with others. For example, they go back and forth with their hands repeatedly. (RUDY, 2020) An autistic person at level 2 might need therapy to help with social interactions and they may also need to be adapted to their level of delay in the grades at the school (LOVERING, 2022).
  
- 3. Level 3 - Requires Very Substantial Support:** children in this category will have many of the same behaviors as those in other levels, but to a more extreme degree. (RUDY, 2020) An autistic person diagnosed as level 3 in either social communication or restricted/repetitive behaviors will need the most support and seem noticeably different at a young age (LOVERING, 2022). They can have problems expressing themselves, even in a verbal way, because children in this level can be nonverbal. They have a very limited ability to speak clearly and will rarely start conversations or interactions with others and they only usually respond only to a very distinct person. (RUDY, 2020)

## 2.1 DSM-5 CRITERIA FOR AUTISM SPECTRUM DISORDER

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the result of efforts supported by the American Psychiatric Association (APA), where clinical researchers in different disciplines are nominated in several levels of the APA organization to revise the DSM. Autism was one of the parts of the directive of the committee on neurodevelopmental disorders, simultaneously with intellectual disabilities, speech and communication disorders and learning disabilities. (LORD; BISHOP, 2015)

The DSM-5 consolidates four previously separate disorders: autistic disorder, Asperger syndrome, childhood disintegrative disorder and pervasive developmental disorder not otherwise specified. (SANCHACK; THOMAS, 2016)



According to Carpenter's (2013, apud ARAN, 2017) adaptation, the criteria of the separation of behaviors related to DSM-5 provides the following classification:

- A) ASD children present persistent deficits in social communication and social interaction across contexts, not accounted for by general developmental delays and manifest three symptoms: deficits in social-emotional reciprocity; deficits in nonverbal communicative behaviors used for social interaction; deficits in developing and maintaining relationships appropriate to developmental level beyond those with caregivers.
- B) ASD children present restricted, repetitive patterns of behavior, interest or activities manifested by at least two out of four symptoms: stereotyped or repetitive speech, motor movements, or use of objects; excessive adherence to routines, ritualized patterns of verbal or nonverbal behavior, or resistance to change; highly restricted, fixated interests that are abnormal in intensity or focus; hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment.

This change is a consequence of a large literature about the different sub types of diagnoses, particularly Asperger's disorder. The concept of Asperger's disorder has been valuable in bringing attention to the fact that significant basic social deficits can occur in individuals without intellectual or language delays.

Another change to ASD criteria, was the shift from three domains: social deficits, communication deficits and restricted repetitive behavior, to two: social communications impairments and restricted repetitive behaviors. (LORD; BISHOP, 2015)

The Diagnostic and Statistical Manual of Mental Disorders published in 2013 contains criteria that enable clinicians to diagnose a variety of psychiatric disorders including autism. In this manual, 5 different autism subtypes are recognized: autism with or without intellectual impairment; autism with or without language impairment; autism accompanying another medical or genetic condition; autism associated with another neurodevelopmental, mental or behavioral disorder; and autism combined with catatonia.

Adding to the complexity, individuals with autism can simultaneously exhibit elements from more than one of these subtypes. (ALPERT, 2021) The change with broader principles, which included deficits in social emotional reciprocity; nonverbal communicative behaviors used for social interaction and developing maintenance was to understand and adjust the various social contexts across individuals with ASD of different developmental levels, cultures and genders could be better reflected. (LORD; BISHOP, 2015)

According to the DSM-5 diagnostic criteria for autism spectrum disorder comprise five symptom clusters: (LORD; BRUGHA; *et al.*, 2020; SANCHACK; THOMAS, 2016)

1) *Persistent deficits in social communication and social interaction, must have evidence across multiple contexts of all the following three subdomains:*

- a) deficits in social emotional reciprocity; for example: from abnormal social approach and failure of normal conversation; to reduced sharing of interests, emotions or affect; to failure to initiate or respond to social interactions.
- b) deficits in non-verbal communication behaviors used for social interaction; for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures, lack of facial expressions and nonverbal communication.
- c) deficits in developing, maintaining and understanding relationships; for example, from difficulties adjusting behaviors to suit in social situations, to sharing imaginative play with others or making friends, to absences of interest in peers.

Specify current severity is based on social communication impairments and restricted, repetitive patterns of behavior.

2) *Restricted, repetitive behaviors, interests or activities manifested by evidence of two of four of the following subdomains:*

- a) stereotyped, repetitive movements, use of objects or speech; for example, lining up toys or flipping objects or echolalia.

- b) insistence on sameness, inflexibility to change in the routines or ritualized patterns of verbal or nonverbal behavior; for example, extreme stress at small changes, difficulties with transitions, greeting rituals, need to take some route or eat the same food every day.
- c) highly restricted, fixed interests that are unusual in the intensity of the focus.
- d) hypersensitivity or hyposensitivity or interest in sensory inputs to aspects of the environment; for example, indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching objects, visual fascination with lights or movement.

Specify current severity is based on social communication impairments and restricted, repetitive patterns of behavior.

- 3) *Symptoms must be present in the early development period but may not fully manifest until exceeding limited capacities or may be masked later in life by learned strategies.*
- 4) *Symptoms must cause clinically significant impairment in social, occupational or other important areas of current functioning.*
- 5) *These disturbances are not better explained by intellectual disability or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.*

Specify if:

- with or without accompanying intellectual impairment
- with or without accompanying language impairment
- associated with a known medical or genetic condition or environmental factor
- associated with another neurodevelopmental, mental, or behavior disorder
- with catatonia associated with autism spectrum disorder to indicate the presence of the comorbid catatonia.

Furthermore, other behavioral dimensions caused by social communication impairments, such as anxiety symptoms or depressive disorder, can be indicated together with ASD diagnoses. (LORD; BISHOP, 2015)

### 3. LANGUAGE LEARNING IN THE SPECTRUM

Children with ASD experience atypical language development and often language delay but given their social impairment, the focus of the researcher on ASD has focused on social contributors, and research doesn't discuss about the linguistic environment available to children with autism and whether input contributes to their later vocabulary. All the same time, the ability to use explicit social signs (e.g., pointing) and parental input that follows their child's attention have both been shown to be associated with later language development (BANG; NADIG, 2015).

In some cases, the individual can use words to speak, but cannot use language as a complete system, for this reason his message may not be effectively comprehended. The use of language as a whole is known as pragmatics and has a special contribution to language communication (REPPOND, 2015). According to Monsalve (2002, apud ARAN, 2017) people with autism normally acquire the morphological, phonological, syntactic and grammatical components properly, sometimes they might omit certain morphemes and present certain difficulties with verb suffixes and the grammar.

Individuals with high functioning autism can present difficulties in the semantic aspects of discourse or even pragmatic aspects and prosody (e.g., tone, accent, rhythm) (GONZÁLEZ, 2002 apud ARAN, 2017). Nevertheless, communication problems can happen to any person, even if they use words clearly and thoughtful sentences or correct grammar.

Therefore, this person has not understood how to use the rules for social language, which is known as social pragmatics. There are three major communication skills associated with social pragmatics (using language for different purposes, changing the language for specific purposes and following the rules), however, these skills can change across cultural boundaries. Using social pragmatics correctly is a main problem for autistic people, even at a higher age (REPPOND, 2015).

Autistic individuals can make a literal interpretation of what is said, having trouble understanding metaphorical language, therefore they need brief and clear instructions.

Another characteristic of autistic children is that their thinking is mainly visual, applying this to the language as well, the visual information they receive is more important than the words themselves. This particular way of addressing the language leads ASD children to comprehend the whole before analyzing the parts (GONZÁLEZ, 2002 apud ARAN, 2017). The ambient linguistic environment can provide a rich source of information for language learning, but little is understood about the quality of the linguistic environment available to children with ASD and whether children with ASD can use this linguistic information to increase their vocabulary.

To address this gap, a study conducted by Janet Bang and Aparna Nadig in 2015, provides a detailed comparison of the linguistic input available to children with ASD and typically developing children and investigates predictive relationships between input and children's later spoken language. The findings of the study demonstrates that children with ASD are exposed to similar linguistic environments, via maternal and paternal input, when compared to typical developed children, demonstrating that the parental input provided to children with ASD constitutes a learning environment that is as linguistically and interactively good as that provided to typical children (BANG; NADIG, 2015).

Therefore, there is a positive vocabulary acquisition, if children are able to grow in a rich environment with language interactions, considering factors that contribute to the language development, but happens later compared to typical children. Factors that contribute can be aspects of social pragmatism, for example, and how often parents ask questions, comment or expand on the child language also impact later language development (BANG; NADIG, 2015).

### 3.1 ENGLISH AS A SECOND LANGUAGE IN THE SPECTRUM

According to Carlyle (2013, apud REPPOND, 2015), a student whose first language is not English but is in the process of learning English as a second language can be called as an English language learner (ELL). However, the recent literature about second language acquisition in ASD individuals deals mainly with bilingual autistic children, since their parents search for professional help on how to manage their multilingual condition as regards their ASD child, proving that it does not have negative consequences (ARAN, 2017).

A study that had a successful impact in proving there are no negative consequences of learning English in the spectrum in a bilingual context was concluded by Hambly and Fombonne in 2011, which worked with 75 families that had children with ASD from Canada. The families were living in different language environments and their conclusions revealed that bilingual exposure in infancy or post-infancy in ASD children had no impact on their abilities in their mother tongue (HAMBLY; FOMBONNE, 2011).

Several researchers have been studying on how to teach English to students with autism; one of these studies is conducted by Padmadewi and Artini (2017), where they have been discovered that the use of Individual Education Plan (IEP) along with visual media through co-teaching and differentiated instruction, can be beneficial to help autistic students in learning English as a Foreign Language (SARI, *et al*, 2021).

Another study, conducted by Setiadi (2017 apud SARI, *et al*, 2021) discovered when the English teacher has a good use of direct or indirect speech in the classroom they could help autistic students in the teaching-learning process. Even working with the use of speech therapy (ROMANDLON, 2017 apud SARI, *et al*, 2021) can help autistic students learn English, since speech therapy often requires categorizing language teaching.

English language learners and learners with autism have more similarities in learning than differences, due to cultural, emotional and cognitive barriers, since learning English at the regular classes setting can be difficult for both groups of students. Having the same mother tongue, they can both struggle considerably with parts of the language, gaps and misunderstandings causing obstacles to their learning ability (REPPOND, 2015).

However, when it comes to learning English, the listening skill is something all students need to acquire, since without an acceptable listening skill the interaction among students can be challenging.

Students can have difficulties in starting a conversation or follow the commands from their teachers. Therefore, an English teacher needs to know and apply the different methods and strategies in the classroom for students to develop the listening skill properly (SARI, *et al*, 2021).

### 3.2 TEACHING ENGLISH AS A SECOND LANGUAGE TO AUTISTIC CHILDREN

The introduction of this new reality in the regular class can be very challenging for teachers. Mixing normal developing peers with divergent learners created a race to figure out what is the best way to educate those students in these settings. This race can become valid when teachers understand the learning barriers as well the gaps that currently exist and the implementation of good curriculum, techniques and practice tools to effectively teach this population of students (REPPOND, 2015).

According to Vygotsky's (apud GOLSHAN; et al, 2018) social learning theory, there is a reciprocity between language acquisition and social development. Therefore, during the cognitive development of autistic children and their social improvement while staying in school, the teacher can engage a proper social model and maybe the preliminary of a successful learning environment, to keep their joint attention during the learning process (GOLSHAN; et al, 2018). Social interaction is a basic principle in a second language classroom (WIRE 2005, apud ARAN, 2017) and those are the best moments for ASD children to interact and connect with their classmates. The difficulties may appear in ASD children following lots of verbal instructions, where it is better to use visual prompts and avoid multiple instructions (ARAN, 2017).

Autistic children in a school environment often remain disengaged in social settings, reducing opportunities for social communication development, leading researchers to investigate creative means that might improve social communication and increasing meaningful relationships (SHARDA; TUERK, *et al*, 2018).

Several researchers have highlighted the importance of the role of motivation as an important factor to help children with ASD to acquire a new language, (ARAN, 2017) but music also have been reported to have a profound effect on children with ASD (SHARDA; TUERK, *et al*, 2018). Strengths in music processing have been mentioned since the first description of ASD; many studies have reported enhanced musical skills, such as absolute pitch or melodic memory. A study, conducted on how music can improve the social communication in children with autism, discusses that because of the intrinsic reward value and the ability to modify brain and behavior and the universal appeal, musical activities have been proposed as a potential strength-based rehabilitation tool for ASD (SHARDA; TUERK, *et al*, 2018)

Autistic children usually have problems sitting quietly in the classroom and the absence of eye contact, they also have uncontrolled movements and easily get angry or cry for no reason. Therefore, researchers have suggested that teachers use Total Physical Response (TPR) to teach autistic children (SARI, *et al*, 2021).

Total Physical Response (TPR) is a language teaching method founded by Asher in 1965 (apud SARI, *et al*, 2021), that was constructed around coordinating speech and action. TPR uses lots of physical activities, helping students to memorize new words and understand instructions ordered by teachers (NURAENI, 2019 apud SARI, *et al*, 2021). According to Asher (1966 apud SARI, *et al*, 2021), the TPR method is in harmony with the natural order of the language learning, allowing learners to feel mitigate, using physical movements to respond to oral input and reduce student barriers and responding to language learning without pressure (YUSUF, 2017 apud SARI, *et al*, 2021).

A study conducted in the Indonesia (WINDI, 2017 apud SARI, *et al*, 2021) proved that three students from primary education with autism had an increase of vocabulary after given treatment using the TPR method. Doing physical action while practicing a new word will help students grab the meaning of the vocabulary and understand how to use in a conversation (SARI, *et al*, 2021).

Even with the growth of people being diagnosed with ASD, there is yet a considerable gap in literature between autistic students and English language learners, such as lack of communication and presence of open-minded educators to embrace pedagogical approaches based on the needs of everyone (GOLSHAN; *et al*, 2018).

The teacher can use different strategies in the classroom observing the autistic student behave and interact while staying in the class. To guide to design these strategies, the teacher can write a list with the positive and negative aspects of the learning process of listening and speaking in English, especially regarding the concentration the learner has in the class. These strategies must be designed with the purpose of helping students to focus on what they must do in class, guiding them to work independently and interacting with others in a proper way without affecting the learning (CHARPENTIER, 2021). Several strategies have been used in a study, made by Karla Charpentier (2021) in one student with autism in an English class at a regular school in Costa Rica.



There are few in the following:

- use colors to explain difficult concepts or patterns. Since ASD are visual learners, the colors will help to remember important information regarding grammar, vocabulary or patterns. The teacher can ask the learner the word and the color, creating a connection between them both, the production of the student may improve matching meaning with the color and feeling comfortable when remembering it.
- since autistic students can have difficulties in focusing on the same task for a long time without losing interest and attention, the teacher can give the student mini breaks in which he can stretch his body and have some time to do other activities, in this way the student can work and participate in class in a proper way.
- use simple vocabulary, maybe saying cognates could be better and easier to understand along with body language at the moment of explaining and talking with an autistic student, because it can become easier for the learner to follow the instructions from the teacher, and he may feel secure at the moment to complete the activity proposed.
- create an agenda along with the student, this way the autistic learner will know what he must do and what will happen in the English class.  
Use several pictures that represent actions, for example: pay attention, cut, work in groups. Adding a clock and the words 'yes' and 'no' will give the student the period to complete the activity and if the learner does on time it will be pointing out the word 'yes'. The teacher even can add a happy face in the agenda when the task will be completed and in a proper way.
- use the thermometer of emotions. This is a thermometer in which the student can express how he is feeling without behaving inappropriately in class, controlling the student's emotion. The teacher can create one using colors, using red for when the student is feeling upset, yellow for a little bit mad and using green to mean that the student is happy. Therefore, when the learner uses this thermometer that means he can control his feelings and may have the solution to calm down. This technique of emotions helps the student to improve attention in the classroom, so can continue participating in the English classes.

Considering several difficulties an English teacher can face in the classroom, when teaching in a class with autistic children, one is regarding listening activities. The activity in the listening section must be given to teach students in a way they can improve their skills in listening, that means that task should help students to focus on what should be listened to, assessing how accurate is the listening of the students and applying to a real practical situation outside the classroom (SARI, *et al*, 2021).

. A Total Physical Response (TPR) can be a method to teach vocabulary and practice the listening skill as well to students in the autism spectrum disorder by using movement. Thus, this method brings an enjoyable atmosphere for learners when studying a foreign language (LARSEN, 2000 apud SARI, *et al*, 2021). Using action, students can understand the meaning of a word better than merely memorizing and using imperative words teachers can direct student's behaviors.

The use of commands in the main teaching techniques of TPR, using lots of movements. Commands can be presented in a sequential order but should not be an exact repetition of the same sequence, for the teacher might vary the practice every time to avoid memorized a fixed sequence of behaviors (SARI, *et al*, 2021).

The commands are used to communicate all grammar features and hundreds of vocabulary words and they can be divided into several groups, as the following (SARI, *et al*, 2021):

- moving the whole body or parts of the body: asking students to 'stand', 'walk', 'jump', 'run', 'sit', etc.
- moving things: giving students directions to 'write an A on the blackboard', 'touch your nose', etc.
- moving abstractions or pictures: placing the picture of a cat above the word can on the book, placing the picture of the pilot on the picture of an airplane, giving on happy birthday card to a friend, etc.
- action sequences are based on everyday activities, such as eating lunch, washing dishes, etc. The command for each activity can be separated into different sequences, for example, 'take your sandwich using both hands', 'eat the sandwich', 'stop', 'grab your bottle', 'drink the water from the bottle', etc.

If the English class were taught six hours per week, it will take around 20 weeks or five months to do the TPR method in the classroom, after that, students are believed to have enough vocabulary to start simple conversation based on daily routines (SARI, *et al*, 2021).

Teaching autistic children is a tough job for teachers around the world, especially when it comes to teach a new language. Sometimes, it might be a very stressful job and having no support can be a challenging situation. For that, relying on the family of the autistic student is a good strategy to not lose focus. The parents of these children are the one the teacher needs to get support, since they are the ones who are always in contact with the learner, they understand the difficulties and the challenges to teach an atypical child, they will understand how the child reacts to a specific situation and to avoid in the classroom.

In the view of the fact that, knowing how to communicate in English is something indispensable nowadays, the intention of this study was to awake a desire for teachers to understand about this topic and create new methods and different types of activities to apply in an English classroom. This way, even having a neurodivergent brain, autistic people can integrate and relate with the world when they communicate in English.

## 5. CONCLUSION

Having an autistic child in a regular classroom is a reality in several schools in Brazil, so there is an urgent need among teachers to understand how to work with these students. Every step towards their improvement in learning the English language is a baby step, and each autistic mind has their singularity. Therefore, maybe a strategy can work with one student but not all children will have the same response.

The objective of this paper consisted of reflecting about methods and strategies to apply in an English class to an autistic child, since it can be a different challenge that a teacher may face. The development of this paper presented the wide concept of the autism spectrum disorder and how can be identified into the new criteria, this way it can help teachers understand a bit of the autistic mind and reality; as well as covering main aspects of how autistic children may act in a classroom setting and how teachers can help improve their learning, with a focus in becoming an English speaker. The main goal of this paper was achieved since it provided a reflection on how English language learning can be regarded by teachers who work with autistic children.

Research regarding this topic is increasing every year, demonstrating that it can be a new focus of future studies, focusing on how autistic minds are able to communicate creating their own system without using any type of language, for example, or how to teach deaf sign to nonverbal autistic children. In a world that needs more and more inclusive practices, allowing autistic children the skill of acquiring a foreign language is certainly a challenge, however it may bring lots of benefits for the children and their families.

## REFERENCES

ALPERT, Joseph S. Autism: A Spectrum Disorder. **The American Journal of Medicine**, Tucson, v. 134, n. 6, p. 701-702, jun. 2021. University of Arizona Department of Medicine. Elsevier BV.

ARAN, Eva Vigil. An Autistic Child Learning English as a Foreign Language. **APAC Journal**, n. 85, p. 27-34, out. 2017.

BARRERO, Ana Maria Gonzalez. **The Linguistic and Cognitive Effects of Bilingualism on Children with Autism Spectrum Disorders**. 2017. 197 f. Tese (Doutorado) - Curso de Doctor of Philosophy, Faculty Of Medicine, McGill University, Montreal, 2017.

BANG, Janet; NADIG, Aparna. Learning Language in Autism: maternal linguistic input contributes to later vocabulary. **Autism Research**, [S.L.], v. 8, n. 2, p. 214-223, 2 mar. 2015. Wiley. <http://dx.doi.org/10.1002/aur.1440>.

BERKEN, J. A. et al. Effects of Early and Late Bilingualism on Resting-State Functional Connectivity. **The Journal of Neuroscience**, Canada, v. 4, n. 36, p. 1165-1172, 27 jan. 2016. Behavioral/Cognitive.

CHARPENTIER, Karla Avalos. Teaching Strategies for first-grade students with autism spectrum disorder in the Process of Learning English as a Foreign Language. **Ciencia Latina Revista Científica Multidisciplinar**, México, v. 5, n. 2, p. 1999-

2019, março-abril 2021. Universidad Hispanoamericana de Costa Rica.

CHERNEY, Kristen; SCHULMAN, Jill Seladi. **Everything You Need to Know About Autism Spectrum Disorder (ASD)**. August 10, 2021. Healthline Media. Disponível em: <https://www.healthline.com/health/autism> Acesso em: 01/10/2022

FINK, Arlene. **Conducting Research Literature Reviews: From the Internet to Paper**. Fourth edition. Thousand Oaks, California: SAGE, 2014.

GAIATO, Mayra. **Desenvolvimento da fala**. 2021. Equipe Instituto Singular. Disponível em: <https://institutosingular.org/desenvolvimento-fala/>. Acesso em: 27 out. 2022.

GOLSHAN, Fatemeh; MOINZADEH, Marjan; NARAFSHAN, Mehri Haddad; AFARINESH, Mohammad Reza. The Efficacy of Teaching English as a Foreign Language to Iranian Students with Autism Spectrum Disorder on Their Social Skills and Willingness to Communicate. **Iran J Child Neuro**, v.13, n. 3, p. 61-73, 26 fev. 2018. Kerman Neuroscience Research Center

HAMBLY, Catherine; FOMBONNE, Eric. The Impact of Bilingual Environments on Language Development in Children with Autism Spectrum Disorders. **Journal Of Autism And Developmental Disorders**, [S.L.], v. 42, n. 7, p. 1342-1352, 22 set. 2011. Springer Science and Business Media LLC.

JASINSKA, K.K.; PETITTO, L.A. How age of bilingual exposure can change the neural systems for language in the developing brain: a functional near infrared

spectroscopy investigation of syntactic processing in monolingual and bilingual children. **Developmental Cognitive Neuroscience**, [S.l.], v. 6, p. 87-101, out. 2013.

LORD, Catherine; BISHOP, Somer L.. Recent Advances in Autism Research as Reflected in DSM-5 Criteria for Autism Spectrum Disorder. **Annual Review Of Clinical Psychology**, [S.L.], v. 11, n. 1, p. 53-70, 28 mar. 2015. Annual Reviews.

LORD, Catherine; BRUGHA, T.S, *et al.* Autism Spectrum Disorder. **Nature Reviews: Disease Primers**, v. 5, n. 6, p. 1-23, Jan. 2020. Disponível em:  
<https://www.nature.com/articles/s41572-019-0138-4> Acesso em: 24/10/2022

LOVERING, Nancy. **What are the 3 levels of Autism?** 2022. Medically reviewed by Dannell Roberts, PhD, BCBA-D. HEALTHLINE MEDIA. Psych Central a Red Ventures Company. Disponível em: <https://psychcentral.com/autism/levels-of-autism#recap> Acesso em : 15/11/2022

MARIAN, Viorica; SHOOK, Anthony. **The Cognitive Benefits of Being Bilingual.** 2012. CEREBRUM. DANA Foundation. Disponível em:  
<https://www.dana.org/article/the-cognitive-benefits-of-being-bilingual/> Acesso em: 22/09/2022

MEIRELLES, Elisa. **Inclusão de autistas, um direito que agora é lei.** 2013. Associação Nova Escola. Disponível em:  
<https://novaescola.org.br/conteudo/57/legislacao-inclusao-autismo>. Acesso em: 05 nov. 2012.

PADMADEWI, N. N.; ARTINI, L. P. Teaching English to a student with autism spectrum disorder in regular classroom in Indonesia. **International Journal of Instruction**. [S.L.], v. 10, n. 3, p. 159-173, 2017.

REPPOND, Jennifer S. **English Language Learners on the Autism Spectrum: Identifying Gaps in Learning**, 2015. Hamline University, Minnesota. 242, School of Education Student Capstone Theses and Dissertations. Disponível: [https://digitalcommons.hamline.edu/hse\\_all/242/?utm\\_source=digitalcommons.hamline.edu%2Fhse\\_all%2F242&utm\\_medium=PDF&utm\\_campaign=PDFCoverPages](https://digitalcommons.hamline.edu/hse_all/242/?utm_source=digitalcommons.hamline.edu%2Fhse_all%2F242&utm_medium=PDF&utm_campaign=PDFCoverPages)  
Acesso em: 20/11/2022

RUDY, Lisa Jo. **Understanding the Three Levels of Autism**, 2022. Medically reviewed by Steven Gans, MD. Very Well Health. Dot Dash Media, Inc. Disponível em: <https://www.verywellhealth.com/what-are-the-three-levels-of-autism-260233>.  
Acesso em: 13 nov. 2022

SANCHACK, Kristian E.; THOMAS, Craig A., Autism Spectrum Disorder: primary care principles. **American Family Physician**, Florida, v. 94, n. 12, p. 972-980, 15 dez. 2016.

SARI, Diana F.; GEA Evriani R; FAJRINA Dian. The Listening Skill of Autistic Students in Learning English Through Total Physical Response. **Studies in English Language and Education**, [S.L.], v. 8, n. 1, p. 34-46, 03 jan. 2021. Siele Journal. <http://doi.org/10.24815/siele.v8i1.18131>

SHARDA, Megha; TUERK, Carola; CHOWDHURY, Rakhee; JAMEY, Kevin; FOSTER, Nicholas; CUSTO-BLANCH, Melanie; TAN, Melissa; NADIG, Aparna;



HYDE, Krista. Music improves social communication and auditory–motor connectivity in children with autism. **Translational Psychiatry**, [S.L.], v. 8, n. 231, p. 1-13, 23 out. 2018. Springer Science and Business Media LLC. <http://dx.doi.org/10.1038/s41398-018-0287-3>.

TRAUTNER, Tracy. **Advantages of a bilingual brain**. 28 jan. 2019. MSU Extension Early Childhood Development. © Michigan State University. Disponível em: [https://www.canr.msu.edu/news/advantages\\_of\\_a\\_bilingual\\_brain](https://www.canr.msu.edu/news/advantages_of_a_bilingual_brain)  
Acesso em: 01/10/2022

VOLKMAR, Fred R; PAULS, David. Autism. **The Lancet**, United Kingdom, v. 362, p. 1133-1141, out. 2003. Seminar Yale University. National Institute of Child Health and Human Development. National Alliance for Autism Research.