

CORPORACIÓN UNIVERSITARIA MINUTO DE DIOS- UNIMINUTO FACULTAD DE EDUCACIÓN

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(Pictograms as an Augmentative and Alternative Communication (AAC) Model to Promote Oral Communication in an Autistic Child in Spanish)

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Dedication

Thanks to my parents, who have supported me throughout my journey, even though they can't be with me.

Thanks to my sisters Martha and Sandra for being with me all the way and supporting me throughout my life.

Thanks to Professor Catalina for her perseverance in helping me with this work and not leaving me alone on this path.

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Introduction

The autism spectrum disorder is a condition that affects people's social skills and communication. In addition, this condition should be treated in special education. The goal of this review is to provide a proposal for developing a lesson plan based on augmentative and alternative communication in a child with ASD. This proposal will assist teachers and the education community in implementing it in their classrooms in order to assist the special needs community and promote diversity in the schools. The executable functions that are important for the child with ASD to develop for their daily lives are included in the documents. In addition, autism spectrum disorder is a condition that affects the brain of a human being. These conditions have an impact on people's language, interaction, and communication. As a result, using augmentative and alternative models in the lesson plan is appropriate. The development of materials to assist teachers and educational communicative materials based on pictures will benefit both children with ASD and regular students.

Abstract

This work is a proposal to design a lesson plan based on the method of augmentative and alternative communication (AAC). The purpose is to help a child with autism spectrum disorder (ASD). The lesson plan has features such as executive functions and pictograms. The lesson plan goal is to help regular students and students with special needs increase their vocabulary or recover it.

Key words: special needs education, autism spectrum disorder, pictograms, augmentative and alternative communication, executive functions. lesson plan.

Contextualization

1.1 Macro Context

Pedro lives in the city Bogotá, in Minuto de Dios neighborhood, it is a neighborhood located in the locality in Engativa. It is a residential area with parks and big houses. In addition, there are commercial streets, malls, museums, schools, cultural places, and churches that belong to Minuto de Dios corporation too. The neighborhood is surrounded by Boyacá Avenue, 80th and 90th Streets. There are some schools and a university which are part of the Minuto de Dios Corporation. Also, there are some public schools, but they are not able to teach or help children with ASD (autism spectrum disorder) because they do not have the resources or infrastructure.

The house where Pedro lives has two floors with a garage on the Ground floor. The kitchen, living room, bathroom, and space for Pedro to play or study are all located on this floor. On the second floor, there are three rooms for his parents, one for his older brother, and him. His room is special because there are pictograms such as clothes, a bed, a chair, and a table.

The house is adapted to follow Montessori's model; in this way, Pedro can explore him independently. Besides, he thinks for himself and hasdeveloped confidence and inner discipline. Also, this model gives freedom to Pedro to do daily activities such as dressing up, eating, going to the bathroom without his parents' assistant. Finally, he can use technological devices such as computers to have his classes or watch videos.

1.2 Microcontext

Pedro is seven years old. when, he was 18 months old, his mom noticed something strange after a vaccine was applied to him. Her mom, Ana, noticed that Pedro was disconnected from reality; he Stopped communicating with his family. For this reason, Ana decided to go to the hospital to find out what had happened to her son. However, the doctor said that he did not have anything, Ana was Imagining that her son had. That her son had a condition.

She knew her son had something. Nevertheless, the EPS¹ did not provide a diagnosis for him. As a result, Ana went to another medical center searching for help, and she found a foundation called Neurocom. This place helps children with ASD, and the treatment activates the brain with methods such as Neurofeedback and ABA (Applied Behavior Analysis); it is a method to help students with learning problems; in this sense, they develop and improve children's skills and encourage them to be autonomous. Nevertheless, the treatment was too expensive, and she did not have money to pay for all the sessions.

For that time, a doctor affirmed Pedro suffered from auditory verbal agnosia, which is an inability to decode the language. As a result, children cannot understand or comprehend what others say. In these circumstances, autistic children with this level of affectation do not attempt to communicate through nonverbal means (drawings and gestures). This means that the child with ASD can use body language or gestures.

Consequently, Pedro was 3 years old age started with the treatment to develop his language and improve his communication. The professional who helped was a psychologist who worked with children with ASD. The purpose of the therapy was to improve his physical movements, such as raising his hand or raising his feet. In the case of communication, the

¹ The Health Promoting Entities(EPS) are in charge of making the affiliation, the registration of the affiliates to the General System of Social Security in Health

therapist started to be implemented in her sessions to make sounds such as animal sounds, but the children with ASD were not taught to produce human sounds. For the pandemic, he had therapies but only remotely. Ana explained this situation in the interview that the researcher did before because she was collected information regarding the research. She explained his methods and strategies, necessities that her son has.

The child with ASD used to study in a Kindergarten from the organization Minuto de Dios, but he could not attend the kindergarten because the teachers did not know how to teach him. And decided to withdraw her son from kindergarten. She decided to do homeschooling. Since then, she does activities to help her child to develop his capacities through activities such as creating a book to recognize the colors, shapes, animals, paint, and activities to develop gross motor skills. Moreover, she does activities, and she wants Pedro to work on his speaking skills such as repeating words or phrases, singing songs, and communicating with his family.

2 Problem

2.1 Description of the problem

Special needs (SEN) is a term used in education to describe learning difficulties or disabilities that make it hard for Children Dis capacities or syndromes to learn in the same way as children of the same age. According to Tremblay (2007), "special needs (SEN) is defined as "specially" designed instruction to meet the unique needs and abilities of exceptional students." (p.2). This means Children with special needs CSN are individuals with special characteristics and skills; however, they learn differently, and they need the support of other people.

Furthermore, Gallegos (2019). Children with remarkable ability, those who struggle with language and communication, TDHA, dyslexia, and psychological and social development because of obstacles caused by various indole. To succeed in school and in life, it must be minimized or eliminated. Moreover, Changes in a range of cognitive functions, including sensory, perceptual, motor, intellectual, emotional, and social ones, are present in these kids.

To guarantee children with special needs CSN's rights, the United Nations (UN) (2006) ask governments, parents, and educational institutions to guarantee the participation in society of CSN on an equal basis with others. Also, the government must recognize the

inherent dignity and worth and the equal and the inalienable rights of all members of the human family as the foundation of global freedom, justice, and peace.

Secondly, the United Nations UN (2006) suggests the need to protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity. Thirdly, the UN confirms the universality of all human rights and fundamental freedoms, that the people with disabilities have access to full enjoyment without discrimination in educational establishments

In the Colombian context, two decrees regulate Special Needs Education; on one hand, the educational Ministry (1996) in the Decree 2082 regulates and proposes the curriculum schools should design for students with special needs to guarantee CNS's right to equality and suggest applying didactic models. Also, it conceives specialized support classrooms as a set of services, strategies, and resources offered by the establishments educational to provide the supports to achieve the comprehensive care of students with limitations or with exceptional abilities or talents. For example, education establishments require specialized teachers, materials, and resources that support the development of cognitive and motor skills of each special need.

On the other hand, Decree 2082 (1996) regulates the attention to education and integration in society to people with certain limitations or disabilities. It suggests promoting and carrying out programs and experiences of permanent education and dissemination and appropriation of culture. Also, classes for special needs education (CSN) should be with fewer students than other classes to give individual attention to each student. Third, they need constant support and special resources for teaching children with special needs education (CSN). Fourth interdisciplinary professionals should help children with delicate health. Fifth, areas for their recreation should be special so they do not hurt themselves. This means that

the educational establishments and professionals have to know how to attend them in these places' schools and educations establishments, because CSN might have difficult health conditions, and the way that they learn is different from other children the same age.

Instead, one of those is Autism defined These scholars contend that during the first few years of life, social interaction, communication, and brain development all have the potential to affect behavior. Congenital changes to affective relationships may cause it. (Pérez and Artigas to quote Soto, Gaviria, et al. (2021))

Moreover, this is the case with Pedro, a 7- year- old boy. He was diagnosed with Autism and limited verbal communication when he was a baby. Even though he has received therapies and his mom has implemented techniques to improve his oral communication, he still has some difficulties speaking and communicating with others. It means he is not able to express his emotions, needs, or ideas with words orally. However, he can communicate with some gestures or actions such as touching hair or hands, shouting out, and so on.

As a consequence, Pedro cannot express his ideas clearly, so he feels frustrated and anxious because he is not able to express his feelings or thoughts about a situation. In addition, he has some difficulties having contact and maintaining a relationship with his family or other people because he must touch or smell people to accept them. Some people will feel embarrassed or do not accept this behavior. In the future, it might represent a problem to have an independent life. Hence, his parents and brother are doing activities and trying to look for help to work on his communication skills.

2.2 Statement of the Problem

How to design interventions using the alternative and augmentative communication model (AAC) for a child with ASD?

2.3 Justification

This research is important to develop because Pedro needs to develop oral communication skills, so he can be more independent and, in the future, attend regular education, and not require the assistance of caregivers or parents to do his daily activities.

Moreover, implementing no traditional methods for teaching to students with ASD communicate with other children might contribute to improve their communication skills and the way they connect with the world, as well as supporting parents 'labor, and a psychologist to do activities to improve his speaking skills.

In the social skills, this research might support children with ASD, parents, caregivers, and the community to understand alternative systems of communication to have contact with children with ASD, and in this way, children with ASD could establish relationships with people different from their family or caregivers. The children with ASD can live in a community without obstacles or prejudices.

2.4 Objectives

2.4.1 General Objective

Designing lessons plans during six interventions using an alternative and augmentative model in the oral communication to a child with ASD

2.4.2 Specific Objectives

- To collect information to the oral communication skills of a child with ASD
- To design sessions to enhance oral communication the implementation of an alternative and augmentative communication model for a child with ASD
- To reflect on the implementation of an alternative and augmentative communication model for a child with ASD

3 Chapter 3: Referential framework

3.1 Background framework

The purpose of this background framework is to demonstrate the use and application of Augmentative and Alternative Communication (AAC) as a model of intervention to encourage communication with a child with ASD. Even though there are more models of intervention, AAC allows communication in people without writing skills or they can be able to use oral skills. However, the person who has problems with the language or has a disability to communicate with others can develop their language through images and pictures that allow communication with their families, caregivers, friends, and so on. In this sense, the articles presented in this framework will evidence how national and international studies have implemented ACC.

Meanwhile, the research done by Paredes (2012), implemented and developed the ACC model with six years old children with ASD whose communication was limited. During the implementation, the researcher used books of vocabulary, visual material, and activities such as recognizing clothes, how to wear clothes recognizing the body in the therapeutic sessions, and activities that the children with ASD, their parents and classmates could play together. In addition, the researcher taught the use and functionality of words within people's contexts. For example, to instruct or teach children how to prevent sexual abuse or self-care. The results showed the children developed good motricity, abilities such as recognizing the color, parts of the body, and communicating with other children in the schools to improve their social skills. They anticipated activities through images, made decisions about their daily routines, recognized and chose the different food of their breakfast, lunch, and dinner.

This study evidence that using children's contexts, images or visual resources are good strategies for helping them express themselves. However, it could be necessary to design new materials for children such as games, targets of vocabulary, and activities to improve their motor skills. Also, the research shows parents and caregivers are fundamental in the success of the intervention since they provide the symbols they learn. Nevertheless, the interaction between parents or caregivers with the children with ASD might be minimal because they do not accept the children's condition. This delicate situation can break down the harmony of their families when they must pass for different stages to accept their children.

Following, the research done by Parra (2014) carried out with students between 21 to 22 years old aimed preparing an augmentative communication plan supported by a pictographic system that allows two students with autism exposed to distant higher education to develop adequate reading and writing skills them. They used pictographic as the implementation was based on experiential learning, as long as they learn by doing. Moreover, they used pictographic to give an explanation more appropriately to the concept and used to create paragraphs or texts, using real-life situations, strengthening communication skills with the researcher, university tutors, and family.

This research was an innovation in this field because nobody had used these systems to develop material for Adults with ASD in virtual education. There are universities that use a pictographic method to teach, but the students with ASD are studying face- to -face. They must learn in this way because the students with ASD need to improve their social skills. In addition, they were able to give a more comprehensive explanation of the subject by using the image contained in the pictograms. Since, the students with ASD were able to explain the pictograms in the context of stories, multi-meaning exercises, and answers to questions regarding their personal and social live. In my own perspective, the proposal was an

innovation because it happened before the pandemic, and the teacher thought about how to communicate with students with ASD and help to develop their thinking and social skills.

Subsequently, the research done by Sanchez (2014) aimed at strengthening the interaction process at home through augmentative communication in a child diagnosed with autism. It implemented an ecologic model that allows understanding the influence of the social environment in the person's development. Video recording and diaries were used to gather information.

The result of the role of their parents was an important part of the research because they helped implement activities such as reading articles, newspapers or magazines about sports or politics, and singing songs. Moreover, they helped to improve their pronunciation, writing sentences, and socialization with their relatives. The results showed that the children with ASD improved their pronunciation, vocalization, independence, and they were aware of their actions and how to interact with others

This research evidence how important it is to consider the different contexts of the students with ASD. For instance, the tool was the observation of the children with ASD and with interaction in the family context. I think that the roles of their families were important because they could develop the material and improve their daily routines. However, the interaction with the school should be more active because the participants only focused on familiar context and did not include to the school context.

Following, the research done by Chacón (2013), aimed at strengthening communication processes and social, communicative, and cognitive abilities in a child with ASD through an ecologic model. The tool to collect information was through ecological evaluation, parent interview, and communication evaluation. The results showed that the children with ASD improved their gestural and oral communication with their relatives, classmates, teacher, and caregiver saying some words, recognizing their own body, and that

they can do their daily routines and being independent in the development of some basic activities.

This research evidenced that the context and the environment are fundamental to improve communication in children with ASD. This led to research to establish a better proposal about intervention and improve social and communication skills. Hence, it was a great strategy to use new technologies such as simple communicators, digitized voice, with the synthesis of voice, laptops, tablets, PCs, pushbuttons of multiple forms of drive or specific software's. Moreover, this research was important because it reveals parents and caregivers are essential to have a successful intervention. In this sense, intervention models should always include parents and caregivers in the process.

The fifth research was done by Banoy (2013) it focused on strengthening the interaction process at home through augmentative communication in a child diagnosed with autism. The medium to collect information was photographs, diaries, videos and evaluations. The results showed that the child with ASD can have more communication with their parents, teachers, family, caregivers, and friends. The child with ASD expressed her likes and dislikes through images that allowed her to do activities independently and participate in activities in the schools such as scholarships and sports.

This research evidenced that the context of the implementation is fundamental to improve communication in children with ASD. For instance, this research allows understanding that children with ASD can be autonomous and express themselves. In addition, the child with ASD develops her daily routines such as going to the bathroom, eating alone, and signs to express her emotions to the people around them. Additionally, research is important because it helps a child with ASD to be more independent and work his communication in his context. It means that the participants can learn vocabulary based on

their contexts such as food, routines and so on. to express ideas or emotions to people who do not know him.

3.2 Theoretical Framework

The purpose of this theoretical framework is to inform the public about this syndrome. The concepts that will be approached to help people to understand the autism spectrum disorder (ASD), executive functions in autism spectrum disorder, and alternative and augmentative disorder.

3.2.1Autism spectrum disorder (ASD)

According to Rodriguez and Cordero (2020) The people with ASD are a diverse set of illnesses that start in childhood and endure throughout adulthood, both in terms of their genesis and clinical presentation. They do not share affect with other people or the `people with ASD have problems doing a social interaction and communication with other people. As well as the existence of repetitive and restricting behavioral patterns.

Autism has non-identical manifestations and is particular in everyone. Also, the symptoms may be diverse in the development of brains and genetics. It means that they have issues in their cognitive, social, and physical development.

Children with ASD can have a variety of effects on learning for example, they can learn vocabulary using pictograms, graphic symbols or learning through the five senses. .

With early interventions in particular, some of these learning challenges can be successfully overcome, and in other circumstances, these learning challenges are also accompanied by strengths that are special to children with ASD (Hampton et al., 2019 quoted for Gil, et al. 2020).

Another important aspect is the problems with the language, use because they do not know the use or comprehension of the words that they can use. They must learn the process for using the language or with specific components of language, such jokes, expressions, and

body language, having trouble normally absorbing sensory data, difficulty comprehending or acknowledging the feelings or opinions of others.

In addition, people with ASD have difficulty working or participating in activities without a clear goal; and difficulty switching from one activity to another, especially if they must do so from one, they enjoy to one they don't; and difficulty engaging in constructive play when they are not given clear direction or instructions; and difficulty moving from one activity to another (Bo et al., 2016 quoted for Gil, et al. 2020).

3.2.1 Executive functions in the autism spectrum disorder

According to Martos & Pérez (2011) .The prefrontal cortex of the brain, where the 'command post' appears to be placed, has historically been thought to be where executive functions are located. This is because it organizes and controls the extensive interconnectedness of many other brain regions. Moreover, if the executive functions do not develop properly people will have problems in their lives because it is important to work these functions from childhood up to 18 years old.

External issues arise as a result of the individual's contact with his surroundings. Moreover, Martos & Pérez (2011) define executive functions as a set of cognitive processes that help children with ASD to solve problems or situations which they do not have a plan to solve. Children with ASD need to develop executive functions because they require to memorize, control impulses, focus attention, be flexible, self-regulated, make decisions, solve problem-solve, learn, adapt to unforeseen and novel situations, and so on, for social adaptation.

However, the executive functions are different in people who have a problem in one part of the brain, like in the case of children with ASD, since they have not developed it or it is limited. Martos & Pérez (2011)

There are six executive functions individuals are: planning, flexibility, cognition, response inhibition, mental skills, and sense of activity.

Planning: It is a complex and dynamic process that requires ongoing monitoring, reassessment, and updating of a series of planned actions. Martos & Pérez (2011) suggests that those with intellectual disabilities show planning deficiencies compared to people with normal development and people with other disorders that are not related to intellectual disability. The difficulties for planning are more evident in adults with autism because they have problems with planning skills and working memory.

Flexibility cognition: It is the ability to adjust one's mind or behavior in response to changes in conditions or contexts. Also, Martos & Pérez (2011) remarks that people with ASD have some difficulties adjusting their minds to new situations. That is why, if a change in children with ASD's behavior wants to be carried out, it must be done step by step to avoid the lack of originality, spontaneity, flexibility, and adaptation to changing settings, as well as the generation of action plans.

Response inhibition: It is the most important mental process for the regulation and control of behavior. It includes the ability to execute, adapt or block overpowering activities that can affect the mood or behavior. Martos & Pérez 2011) comments that the psychological. So, if autism did not have the ability to stop and redirect the activity in a different way, it will generate rigidity and stubbornness. However, the response will be according to the person's intelligence and abilities

Mental skills: Martos & Pérez (2011) explains that mental abilities refer to maintaining simultaneous information about the action of the characters, and the differences

perspectives, between what they see, believe, and know; Mental skills are required to survive in the social to have friends, live with family, coordinate, cooperate, deceive, confront, have a relationship, and so on.

Sense of activity: One of the most important features of individuals is that we are purposeful beings that are constantly planning for the future. Martos & Pérez (2011) describe that we need to depict mental images of the future, mentally visualize what we propose, and anticipate how events will evolve in order to lead such prospective action. We set goals and objectives, and then we act in accordance with them. It needs the capacities of organization and planning to advance according to the purpose of the action.

3.2.2 Children with ASD's oral communication

Communication in children with ASD is different from other children since they present special language patterns and certain language disorders. In this sense, it is relevant to diagnose ASD at an early age to avoid language development delay, and to assess their social behavior.

According to Artigas (1999), there are some characteristics associated with the language in children with ASD. First, they have a lack of gesticulation and communication is not associated with children with ASD because they can do these movements, but they must learn how to do it. Second, when people with ASD try to communicate, they use 'you' or 'he' to substitute 'with a pronoun or expression to call a person. This is a problem associated with cognitive issues because they confuse the pronouns.

Besides, the National Institute of Deafness and Other Communication Disorder (2017) mentions other characteristics in the language for children with ASD: repetitive or

rigid language, Specific interests, and exceptional abilities, uneven language development, and unlimited nonverbal communication skills.

Repetitive or rigid language: It is common to witness youngsters with autism spectrum disorders speak and say things that are either incoherent or out of context. The youngster, for example, counts from one to five repeatedly. They can also repeat the words they have heard. or they ask a question they respond with another question

Specific interests and exceptional abilities: Some children may begin a monologue on a topic that interests them but are unable to carry it out into a discussion. Others have a musical ability or sophisticated counting or mathematical computation skills. Approximately 10% of children with autism have "smart" talents or are exceptionally skilled in specialized areas such as calendar dates, music, or Math.

Uneven language development: Many children with these diseases have speech and language skills that are below the usual level, and their development is generally inconsistent. They can, for example, quickly acquire a huge vocabulary in a particular field of interest because the children with ASD can learn a topic quickly since they have specific hobbies or interests. Many children have excellent recall of information they have recently heard or seen. Some children begin reading before the age of five, but they are unable to comprehend what they are reading.

Nonverbal communication skills are limited: It is common for children with ASD to be unable to make gestures (such as pointing to an item) to convey meaning. They avoid eye contact, making them appear impolite, indifferent, or distracted. Many children with these problems are unable to communicate because they lack the ability of using gestures or language.

3.2.3 Oral communication disorders in children's with ASD

There are some disorders of oral communication associated with a deficit of understanding. It means that they have problems having a relationship between the signified and the context. Artigas (1999) mentions six disorders: auditory verbal agnosia, phonological-syntactic syndrome, lexical-syntactic syndrome, Semantic-pragmatic syndrome, selective mutism, and prosody disorders.

Auditory verbal agnosia: It is an inability to decode the language, so children cannot understand or comprehend what others say. In these circumstances, autistic children with this level of affectation do not attempt to communicate through nonverbal means as drawings and gestures.

Phonological-syntactic syndrome: It manifests as a semantic and grammatical deficiency, accompanied by a vocalization deficit, resulting in a language that is difficult to understand for adults who are unfamiliar with his speech.

Lexical-syntactic syndrome: In this case, children with ASD have problems with looking up a specific word or vocabulary. Also, they do not fix the order of sentences correctly.

Semantic-pragmatic syndrome: The children with ASD do not understand the different meanings of a word. It means that they might not use the proper word in a specific context which might cause misunderstandings with other people.

Selective mutism: Children with this disease can speak normally, but in some contexts (particularly at school or with strangers), they do not use any language at all. Selective mutism shares several characteristics with high-functioning autism and selective mutism. For this reason, it has been suggested that there may be a link between these illnesses.

Prosody disorders: This disorder refers to the difficulties children with ASD have for using the correct intonation, rhythm, stress in sentences.

3.2.4 Alternative and augmentative communication intervention model (AAC)

Gonzalez (2003) remarks the term "Augmentative and Alternative Communication Systems" (SAAC) refers to a group of tools, frameworks, or methods that are intended to support language comprehension and expression in those who have trouble speaking and/or writing. The SAAC are also aids and means that are used to favor people who exhibit communication difficulties, allowing them to express their desires, exchange information, opinions, and even express their own personalities in a way that is far more effective and understandable for others, thereby enlarging their area of expertise.

AAC may be successful only if families support and provide the conditions for using AAC for this reason. They must be in the process to help them to be encouraged to learn. According to Centro Aragonés para la Comunicación Aumentativa y Alternativa ARASAAC (2021) the environments professional's family, colleagues, and friends, must be prepared to teaching using AAC because it helps students to develop or improve their communication skills, stimulus hear and visual senses.

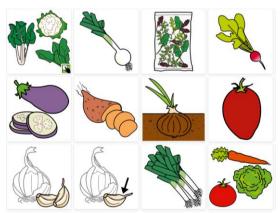
The AAC model, which focuses on children with ASD, teaches them to communicate through vocabulary, helps to the rehabilitation of natural speech as long as interlocutor can be addressed directly without the need for technical assistance. In this sense, Children with ASD can communicate but sometimes without expressions or emotions.

ARASAAC (2021) suggests three main tools to work AAC: Pictographic, graphic symbols, and gestures symbols.

Pictographic: the pictographic are designed for people who are illiterate due to age or disability. They have the advantage of allowing communication to progress from a very basic to an advanced level,

It is intended to promote the improvement of speech, singing, and language acquisition as three aspects of language development. The evolution of singing and verbal language is natural. Because of this, their acquisition and application neither impede nor slow down the emergence of spoken language, but rather encourage and have an impact on it Use of the pictogram to request a specific thing is taught during the first phase of the sign language curriculum. (Fortea et al., 2015 quoted for Mira and Grau2017).

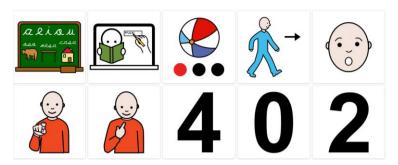
Figure 1
Pictograms



Note: (in this image, the children with ASD should recognize and learn the vocabulary about vegetables.)

Source: Pictogramas Centro Aragonés para la Comunicación Aumentativa y Alternativa ARASAAC (2021)

Figure 2
Pictograms



Note: (in this image, the children with ASD should recognize and learn the vocabulary of learning)

Source: Pictogramas Centro Aragonés para la Comunicación Aumentativa y Alternativa ARASAAC

(2021)

Graphic symbols: the graphic symbols are printed combinations or words or concepts that (Basil, 1998) can be used by people with limited movement thanks to communication support products and varied access resources. They are ideal for those with motor issues who have refused to write due to their age or cognitive level. Also, the material is used to teach such as images, photos, and drawings. Figure 3 illustrates how graphic symbols are represented

Figure 3
Graphic symbols



Note: (in this image, the children with ASD should recognize and learn the vocabulary about the space of the kitchen)

Source: Pictogramas Centro Aragonés para la Comunicación Aumentativa y Alternativa ARASAAC (2021)

Gestural symbols: They refer to mimic or making gestures often in the same sequence as spoken language; non-hearing people's sign languages are not classified as SAAC since they are natural languages that have grown and are acquired in the same way that spoken languages have. Figure 4 shows an example of gestural symbols.

Figure 4
Gestural symbols



Note: (in this image, the children with ASD should recognize and learn the vocabulary about food and likes or dislikes)

Source: Pictogramas Centro Aragonés para la Comunicación Aumentativa y Alternativa ARASAAC (2021)

3.3 Legal framework

According to the article 5 from the political constitution of Colombia (1991) education is a human right and it should be available to all people, regardless of race, social status, or physical or mental disability. In addition, the state will work to ensure that the conditions for equality are real and effective, and it will take measures to help discriminated or marginalized groups.

The state will article 13 from political constitution of Colombia (1991) especially protect those people who are in a position of manifest weakness due to their economic, physical, or mental circumstances, and will sanction any abuse or mistreatment committed

against them. That means the government must ensure that children with special needs receive a quality education. For this reason, there are opportunities for therapists, professionals, learning processes in the field of communication, hospitals, and so on.

Moreover, the decree 1421 2017 establishes that educative attention should be given to the population with a disability in the different levels of education such as kindergarten, primary and secondary. This decree promotes equality in the different aspects of the lives of disabled people to ensure equal access for disabled children and to avoid discrimination

The decree 1420 (2017) remarks the society must guarantee tenth important aspects to people with special needs: access to the schools, affirmative actions, reasonable adjustments, flexible curriculum, Universal Design of Learning, Inclusive education, Scheme of educational care, permanence in education, Individual Reasonable Adjustment Plan (PIAR), and the schools must regulate all these features to satisfied the necessities to this community.

On the other hand, Resolution 2565 (2003) establishes the regulation of the conditions inside and outside of the classroom for children with disabilities. Moreover, teachers or professionals have to design and develop activities that contribute to the integration of children with disabilities into society or academic life. Finally, educational institutions must guarantee assigning educators, professionals in special education, psychology, speech therapy, occupational therapy, social work, Colombian sign language interpreters, linguistic models, and other professionals to the staff as teachers or administrative personnel, and the departments and territorial entities must be certified to support children with special needs.

In this sense, the government must guarantee the right of health to children with disabilities and support the treatment of the syndrome with medicines, professionals, and therapies to help physical and mental to improve their quality of life and their families too.

In addition, statutory law 1618 of 2013 establishes the realization of all people with disabilities' rights, as well as their inclusion. Within the framework of the National Disability System, public entities at the national, departmental, municipal, district, and local levels are responsible for the real and effective inclusion of people with disabilities, and must ensure that all policies, plans, and programs guarantee the full and effective exercise of their rights.

This law allows people with disabilities to access services such as attitudinal, communication, physical, rehabilitation, integral rehabilitation, and National and regional networks. Furthermore, mechanisms for updating the register for the location and characterization of people with disabilities are being implemented. which is integrated into the social protection information system managed by the Ministry of Health and Social Protection. This implementation allows the government to recognize and help families with children with disabilities.

In this sense, law 1346 (2009) promotes, protects, and ensures that all persons with disabilities have full and equal enjoyment of all human rights and fundamental freedoms, as well as to promote respect for their inherent dignity.

Chapter 4: Methodological design

3.4 Type of investigation

According to Creswell (2012) qualitative research studies situations in their natural settings, attempting to make sense or interpret phenomena in terms of the meanings people bring to them. Based on the aforementioned, this study was qualitative since I tried to understand, explore and learn more from the child with ASD his communication, and propose some interventions to contribute to his oral communication, social skills, so that, he can actively participate in a society.

3.5 Method of investigation

This research used Action Research (AR) defined by Burns (2010) as a useful way to broaden teaching skills and improve knowledge about us as educators, our classrooms, and pupils. Furthermore, AR allows the researcher to analyze the aspects around him, and intervene to solve problematic situations as a result, bring changes and improve the practice. In addition, AR helps the teacher improve his teaching skills, as long as he reflects on his practice and develop critical thinking

This research used the AR model proposed by Kemmis and McTaggart (1988 cited in Burns, 2010) to design the intervention sessions to promote oral communication in autistic children, since this model enables the creation of solutions or the resolution of problems within the intervention. This model is divided into four parts: planning, action, observation, and reflection. Even though the model suggests reflecting on the implementation of the plan, it was not possible to do it, so the reflection was done in the design of the activities itself.

Figure 5
Action research cycle

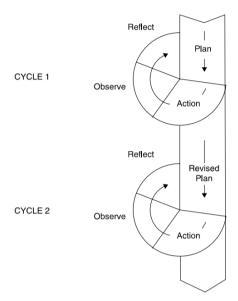


Figure 1.1 Cyclical AR model based on Kemmis and McTaggart (1988).

Note: AR model taken from Kemmis and Mctaggart (1988)

Source: Doing action research in English language teaching Anne Burns (2010)

In the observation phase It was discovered that the child with ASD had difficulty communicating verbally. It was interviewed for this purpose, her mom, who described the difficulties the child had to express his feelings, thoughts and daily requirements or frustration because he cannot talk with his family or say something regarding how he feels and his necessities in his daily life. In the reflective phase, information about how to enhance oral communication in ASD children was looked for. For that, the AAC was selected as a model to promote oral communication.

Six AAC interventions were developed during the planning phase to help the child's oral communication. It was primarily used with pictograms to teach vocabulary related to daily activities, encourage children to identify them, and use them to express emotions and meet his daily needs. In this case, the child with ASD needs to recognize his emotions and

those of other people because he will live an autonomous life, and it is important to have a relationship with other people different from his family.

The interventions could not be used in the action because the study was conducted during the lockdown, so implementing them would have no effect on the ASD child. As a result, some interventions were proposed, which hopefully his mother will implement.

The reflection moment was done during the design of the inventions. In this sense, during the design of each intervention, I reflected on the appropriateness of the pictograms, possible difficulties, the effectiveness of the activities, and other materials used.

3.5.1 Population and sample

The population of this study was children with ASD who are characterized by having problems with their alimentary and sleeping habits, language, motor skills and learning difficulties and imperative, impulsive or distractive behavior.

This population must also face social difficulties such as discrimination, segregation in schools, neighborhood, public transport and so on, and the recognition of his rights, because the prejudices have been presented in the society, and the discrimination is awful part that the children with ASD have to live in their daily lives.

The sample of this research was a 7-year-old child. He lives with his parents and an older brother. The child studies at home because his mother said that it is a challenge to find a school for him. For this reason, his mother implements homeschooling, designing activities based on Montessori's model, also she downloads material from platforms that adjust to his needs.

Additionally, he receives therapists from a specialist who attempts to improve his oral communication skills by using animals sounds. In this regard, the most common feature of

the sessions is repetition. These activities can take anywhere from two to six months. The specialist does not alter the strategy or activities until the child has completed them.

Due to these activities, the child with ASD has developed some abilities such as matching the figures, recognizing colors, and his motor abilities like dancing, jumping and running. In this sense, the child's house has a Montessori model because the child can be more independent and help to be autonomous.

The child does not know how to control his craving to eat. He eats all the time and for this reason, his family must control his diet and hide the food from him. Also, he is open to meeting other people because his mom brings him to the university. He can meet other people. when he is angry or dislikes something. He yells out or eats something that can hurt him. He has a syndrome in which he cannot say anything. In this sense, he cannot say "father" or "mother." It is a challenge to him. For this reason, if he says a word, it will be a big advance for him and his family.

The executive functions that he develops are planning and memory. His mother, on the other hand, tries to work the entire executive function because it is important to both him and the regular child. But there are two really important things to him that have to develop because it will help to create a routine and recognize the language that there is in planning and memory.

Chapter 5 Pedagogical intervention

To assist the autistic child in his oral communication, six interventions were designed using pictograms as the main resource. The lessons plans were designing based on the Spanish language because the child will have problems learn a second language. They were designed to help the child talk about clothes, emotions, animals, daily routines, and parts of the body. These topics were chosen because they could be used in his daily life. Overall, the description of how the interventions were designed will be described below.

Each intervention had six sections: objective, time, strategies, activities, resources, and executive functions. Firstly, the lesson plan included objectives focused on recognizing or identifying vocabulary about clothes, animals, parts of the body, and so on. Regarding the duration of each activity, it was short because the autistic child got bored easily or distracted. So, the time for each activity was between 15 and 20 minutes. The lesson plan is divided into three parts: breaking the ice, development, and conclusion.

The activities were divided into three parts: breaking the ice, development of the activity, and conclusion. In the "breaking the ice" activities, the teacher tried to get the child's confidence to develop the next activities. Once the child felt comfortable with the topic, the teacher introduced it using pictograms or songs. The main activities of the session were then planned, which included songs, games, mimics, dancing, and so on. In the second part, the child put the topic into practice using pictograms, a texture book, matching, finding, play dough, and games. These activities tended to promote interaction between the teacher and the child with autism. The final activities focused on analyzing or observing whether or not the

child understood. There were activities like finding, matching pictograms, following the schedule, and so on.

The main materials used were pictograms. They were downloaded or printed from a database from AARASAC2, which is an organization that provides materials to teach regular and disabled students. The pictograms in the database are provided by its owners and teachers, who create the pictograms and upload them to the database. The pictograms were chosen to adapt to the material that the teacher designed previously and the necessities of the children.

The materials, such as pictograms and paper, were laminated since the child could eat them. However, as a teacher, we should look for different options that can help to replace them. For this reason, I looked for information and methods to modify the material so the child would not be hurt. For instance, in the case of play dough, the teacher should cook it because the material is dangerous to the child, and the child with autism does not understand that he cannot eat the material. Moreover, I used paper, play dough, and a sensitive book because children with autism learn using the five senses. These materials allowed the child to learn in an effective way.

Some activities were designed using online pages. The purpose of these resources is to facilitate the interaction between the child with autism and other people. Furthermore, it is interactive and draws people's attention because the child with autism needs to learn how to integrate with a specific context or his family. Motivation can increase and help the child develop his technological skills.

Technological resources such as computers and TV were used in the design of interventions to help the students with ASD, conditions, or handicaps be included in the classroom. Also, this material can be used by other people, such as families, teachers, students, and so on. In this sense, they can help the child with autism develop his social skills. The child can learn from other people other than his teacher. In addition, it helps the community understand this syndrome.

Because the goal is to help the child develop executive functions in their daily lives, the implementation of executive functions within lesson plans employs flexibility cognition. Furthermore, it assists teachers in monitoring and observing the child's cognitive process. Moreover, the lesson plan can identify two executive functions that the child must develop through these activities. Memory and flexibility cognition are the two. The first one, memory, was chosen because it helped the child remember the vocabulary. In this sense, to develop his communication abilities The second one, flexibility cognition, encourages the child to adapt to different contexts. This means that the autistic child can learn how to behave in a particular situation.

Chapter 6 Conclusions

The goal of this proposal was to create materials to assist the oral communication of children with ASD using the alternative and augmentative communication (AAC) model, so that teachers and community members can be guided in implementing this method in their classrooms or homes.

The research complied with the original site plan because it was dynamic and didactic when using pictograms. For example, in the book Animal Sentiments with Pictograms, the animals are present, but in the lower section are the pictograms and the strategy that the teacher should employ to assist them.

Also, it is important for students with ASD to develop executive functions such as memory, which allows them to remember their routines. The first and most important step is to create a routine in order to avoid disrupting their daily routine and causing a behavioral problem.

The challenges of the study the first was a pandemic because we couldn't intervene with a child and the student with ASD couldn't continue his or her education. The second one was that the therapy was online, and the child felt frustrated because he could not be in the same position for a long time.

Since they only supplied guides, we were unable to step in when, for example, the student was unable to continue with his process. However, when creating the materials, this issue was taken into account, and items that could be used with both ASD and regular children were developed. Materials that promote utilizing all five senses were created as a

result. Additionally, to sustain kids' interest and minimize boredom, these materials use images and pictograms as well as active breaks.

For example, the choice of material was critical: the first was the paper or material, which had to be laminated or plasticized because children with ASD could injure themselves or eat it. As a result, the paper was altered, or the use of alternative materials was implemented. The book of the senses, for example, was an idea in which the child learns by touching the book, and pictograms and the five senses are used to provide the student with more significant learning. However, paper is used to save money or to make life easier for teachers; it can be laminated and stored in a folder for future use.

The second one, the appropriate search for pictograms, was necessary because the teacher must use pictograms, which can be simple for students to understand, and sometimes students are confused by the pictograms or fail to understand them well; however, the correct use and appropriate search for these allow the teacher to be flexible when planning, or in this case, the design should be simple and concrete to meet the objective.

The third one was the selection of activities for their cognitive or motor skills. It is important to work on this part with them because they need to learn to be more autonomous, in addition to the development of other skills. As a result, the development of gross and fine motor skills is prioritized in the design; however, the process may be slower than that of a typical child; with them, we work with pictograms or images that can capture their attention, particularly those that are interactive and motivate them to work on the activities.

Another limitation was that it was not possible to implement the lesson plans as long as the lockdown made it impossible to move from one house to another. That is why I designed a proposal to implement as soon as I have access to the students.

The research advances our understanding of how pictograms can be used to improve oral communication and as a novel method of teaching or designing activities.

Moreover, they always try to design with the use of the five senses or visual resources in mind, and they believe that pictograms can help children who have problems with their reading skills.

They enable teachers to be more creative and innovative in the design of their materials as well as to experiment with pictograms in the explanation of even the most complex topics.

To English teachers, this study might show them a novel approach to teaching a second language in which students can connect images with vocabulary, identify a sentence using pictograms, and even answer a question using only one pictogram. It also boosts students' self-esteem because they can connect their experiences with pictograms and the use of a second language.

However, this material can help other people implement it in their regular classes because the pictograms support the communication. In this way, the students can learn different types of communication, and inclusion can become a reality. Moreover, the pictograms should be selected carefully because there are a lot and the students can be confused.

It helps me to be prepared as a teacher in case I come across a child with autism or another condition. In addition, I will use the alternative and augmentative as strategies in my class. The design material will help me be creative when I create a lesson plan. I mean, there are a lot of possibilities to create material for our students, but the teacher gets married with only one model. I learn that the teacher should adapt to the students or the context of their students.

In practice as a teacher, several factors must be considered, including the needs of the students. In this case, the most important factor was considering the needs of the ASD student. I also assisted in the development of skills such as designing activities that are not

solely based on one method. As a result, I have experience in this area that will help me in the future.

As a result, I can be more flexible when planning a difficult topic, but I can also be a teacher who takes the initiative in inclusion issues, or even teach children with disabilities and regular children to the point where I have to exclude a child with ASD from my class.

For this reason, we tried to select the most common and work with them throughout the whole activity. Playing with his family or imitating the step-by-step of the song are also important because the child will learn to move his body and help create a relationship with other people because children with autism live in their own world and do not understand other people, which can be a problem for them. Nevertheless, they want to participate and have friends. As teachers, we must create opportunities for them.

There should be more innovative strategies or methods in the field of inclusive education in training programs; rather than simply talking about this community superficially, as teachers we should go to the field and experience how special education educators work in this way there is bilateral learning. In this way, they learn from English educators, and we learn from them. Consider the pictograms that are becoming a part of our classrooms, as they can help children with communication difficulties gain confidence and improve their communication skills.

4 Chapter 7 Prospective

Furthering this research allows the teacher toto recognize this model inside their classroom because there are children who have problems learning or who have problems with their communication skills. Moreover, the pictograms can be integrated into their lesson plans.

In the future, this research could serve as a model for the development of materials for teaching vocabulary in the second English language, which is a difficult issue for teachers looking for new ways to teach their students. In this way, the student associates the image with vocabulary, making learning more meaningful because it is linked to prior knowledge.

What is related to this topic in the social area can be taught using pictograms, which can help promote inclusion, work on this topic from a social and critical perspective, as well as teach social problems based on them so that students can connect them with their realities.

Teachers in the English area can assist them in speaking because students sometimes have insecurity issues when speaking. In this way, the students are the first step; they can create sentences using pictograms, and the teacher makes the corrections, giving the students more confidence to be able to speak in English because they previously had feedback, found their mistakes, and managed to overcome them.

References

Decreto 2082 (Ministerio de Educación). Por el cual se reglamenta la atención educativa para personas con limitaciones o con capacidades o talentos excepcionales.18 de noviembre 1996.

Rubio Parra, J. R., & Hernández Pezano, L. (2014). Uso de estrategias de comunicación aumentativa y alternativa para promover la interacción social entre niños de preescolar y educación especial en el Instituto Pedagógico Nacional [Tesis de pregrado] Universidad pedagógica Nacional. Repositorio de la universidad pedagógica nacional

Arenas Soto, E., Gaviria Gómez, K. D., Álvarez Benítez, M., & Guzmán Cartagena, Y. V. (2021). Estudio de caso de un niño con diagnóstico de autismo: exploración de la madurez neuropsicológica, del TDAH, los trastornos de conducta y los problemas del comportamiento en la escuela.

Artigas, J. (1999). El lenguaje en los trastornos autistas. Revista de neurología, 28(2), 118-123.

Banoy, L. N. (2013). Estrategias pedagógicas para la enseñanza de la comunicación alternativa y/o aumentativa en niños autistas. [Tesis de pregrado]. Universidad pedagógica nacional] Recuperado de: http://hdl.handle.net/20.500.12209/417.

Centro Aragonés para la Comunicación Aumentativa y Alternativa. (6 de noviembre de 2022). ARASAAC. Recuperado de 6 de noviembre de 2022 https://arasaac.org/

Chacón Gaitán, E. (2013). Importancia de la intervención pedagógica y la implementación de Sistemas Aumentativos de Comunicación (SAAC) para el desarrollo comunicativo en un niño con autismo de cuatro años. [Tesis de pregrado]. Universidad Pedagógica Nacional

Constitución Política de Colombia [Const]. Art. 13. 7 de julio de 1991 (Colombia).

Constitución Política de Colombia [Const]. Art. 5. 7 de julio de 1991 (Colombia).

Decreto 1421 de 2017 [Ministerio de Educación Nacional]. Por el cual se reglamenta en el marco de la educación inclusiva la atención educativa a la población con discapacidad. 29 de agosto de 2017.

Convencion sobre los derechos de las personas con discapacidad,2006. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.un.org/esa/socdev/enable/documents/tccconvs.pdf

Burns, A. (2010). *Doing action research in English language teaching*. ESL & Applied Linguistics Professional Series

Creswell, J. (2012). Educational Research. Pearson

Frazier, T. W., Keshavan, M. S., Minshew, N. J., & Hardan, A. Y. (2012). A two-year longitudinal MRI study of the corpus callosum in autism. *Journal of autism and developmental disorders*, 42(11), 2312–2322. https://doi.org/10.1007/s10803-012-1478-z

Gallegos Góngora, E. D. C. (2019). Efecto de la terapia de integración sensorial en niños de educación especial con persistencia de reflejos primitivos. [Tesis de pregrado] [universidad autónoma de Aguascalientes] recuperado de http://bdigital.dgse.uaa.mx:8080/xmlui/bitstream/handle/11317/1722/437054.pdf?sequence=1 &isAllowed=y

Gil-Vera, V. D., QUINTERO-LÓPEZ, C., VÉLEZ-LÓPEZ, J. A., & GÓMEZ-MUÑOZ, N. (2020). Capacidades de aprendizaje en niños con autismo: un análisis relacional. Revista Espacios, 343-349.

González, P. M. (2003). Sistemas alternativos y aumentativos de comunicación (SAAC) y accesibilidad: Bases teóricas de los SAAC. *Puertas a la lectura*, (4), 129-136

Ley 1346 de 2009. [el congreso de la república de Colombia]. Por medio de la cual se aprueba la "Convención sobre los Derechos de las personas con Discapacidad", adoptada por la Asamblea General de la Naciones Unidas el 13 de diciembre de 2006. Julio 31 de 2009

Ley estatutaria 118 de 2013[Ministerio de Salud]. Por medio de la cual se establecen las disposiciones para garantizar el pleno ejercicio de los derechos de las personas con discapacidad. Febrero 27 de 2013.

Martos, J., & Pérez, I. (2011). Una aproximación a las funciones ejecutivas en el trastorno del espectro autista. *Revista de Neurología*. 2011. 52 (Supl 1). 147-53

Mira, R. y Grau, C. (2017): "Los sistemas alternativos y aumentativos de comunicación (SAAC) como instrumento para disminuir conductas desafiantes en el alumnado con TEA: estudio de un caso". Revista Española de Discapacidad, 5 (I): 113-132.

Mulas, F., Ros-Cervera, G., Millá, M. G., Etchepareborda, M. C., Abad, L., & Téllez de Meneses, M. (2010). Modelos de intervención en niños con autismo. *Rev Neurol*, *50*(3), 77-84.

Paredes, F. J. (2012). Propuesta para la enseñanza de la comunicación aumentativa y alternativa en la población con trastorno del espectro autista. [Tesis de Especializacion]. Universidad pedagógica nacional] Recuperado de: http://hdl.handle.net/20.500.12209/395.

población con necesidades educativas especiales. 24 de octubre de 2003

Resolución 2565 de 2003 [Ministerio de Educación Nacional]. Por la cual se establecen parámetros y criterios para la prestación del servicio educativo a la

Rodríguez, I. D. C., & Cordero, A. R. (2020). Repercusión psicológica en niños con Trastorno del espectro autista durante el confinamiento por COVID-19. Multimed, 24(3), 690-707.

Sánchez, C. L. (2014). *Comunicación aumentativa en procesos de interacción de un niño con autismo*. [Tesis de pregrado. Universidad pedagógica nacional] Recuperado de: http://hdl.handle.net/20.500.12209/397.

Sánchez, C. L. (2014). *Comunicación aumentativa en procesos de interacción de un niño con autismo*. [Tesis de pregrado]. Universidad pedagógica nacional] Recuperado de: http://hdl.handle.net/20.500.12209/397.

Tremblay, P., & Tivat, M. (2007). Special needs education basis: Historical and conceptual approach [*Ponencia presentada en Tivat, Montenegro*.]. Universidad libre de bruselas

Tremblay, P., & Tivat, M. (2007). Special needs education basis: Historical and conceptual approach [*Ponencia presentada en Tivat, Montenegro.*]. Universidad libre de bruselas

United Nations. (2006). Convention on the Rights of Persons with Disabilities. Treaty Series, 2515, 3

US Department of Health and Human Services. (2017). Autism spectrum disorder: communication problems in children. National Institute on Deafness and Other Communication Disorders [NIDCD]. Recuperado de <a href="https://www.nidcd.nih.gov/health/autism-spectrum-disorder-communication-problems-children#:~:text=Repetitive%20or%20rigid%20language.&text=Or%20a%20child%20may%20continuously,by%20asking%20the%20same%20question

Annexe 1

Image 7

Survey

Cuestionario

1. Informacion personal y contexto

Nombre:

¿cuantos años tiene?

¿en qué barrio viven?

¿con quien viven?

Describa el lugar donde viven

Hay un espacio especial para las terapias

¿asiste a colegio regular o no? qué curso está? qué tipo de colegio es?

2. Terapias

¿quien hace las terapias? ¿terapias de que toma? ¿donde toma las terapias?

¿como ha sido el proceso de las terapias?

Autismo:

¿Cómo es su comportamiento?

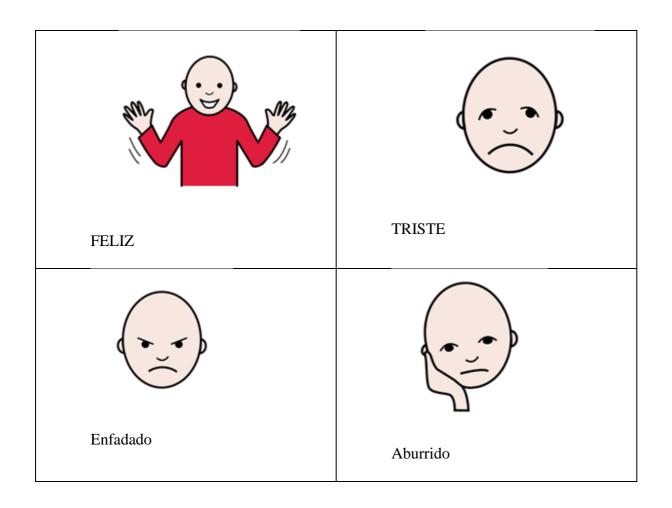
- 1. ¿Me podría contar acerca del autismo de su hijo?
- 2. ¿Cuál es su comportamiento con personas que no conoce?

Comunicación oral

3. ¿Qué dificultades ha identificado que tenga su hijo en la comunicación oral con familiares, cuidadores y demás?

- 4. ¿Para el desarrollo del lenguaje oral, qué tipo de terapias recibe?
- 5. ¿que se trabaja durante las terapias?
- 6. ¿qué tipo de ejercicios o actividades realizan?
- 7. Cuando el niño quiere expresar algo, ¿cómo lo hace?
- 8. ¿qué logra expresar él? Ejemplo, emociones, necesita comida....
- 9. ¿Qué dificultades ha tenido en la enseñanza de la comunicación a su hijo?
- 10. ¿qué vocabulario considera se debería trabajar de manera oral con el niño?
- 11. ¿Alguna vez ha realizado actividades utilizando los pictogramas o los signos gráficos?
- 12. ¿con qué tipo de materiales le gusta trabajar al niño?

Image 8
Pictograms emotions



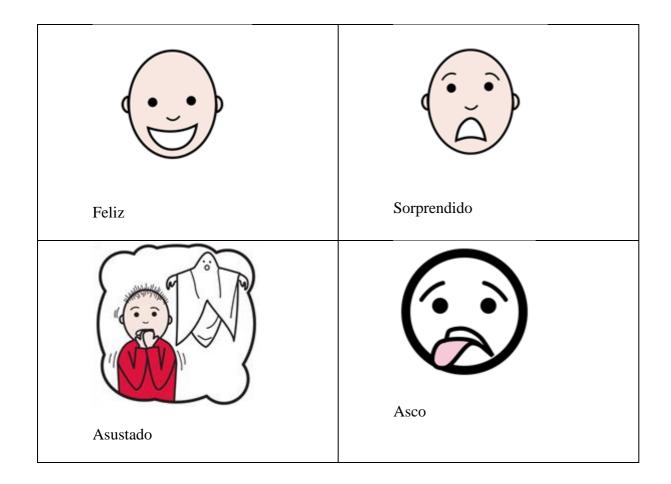
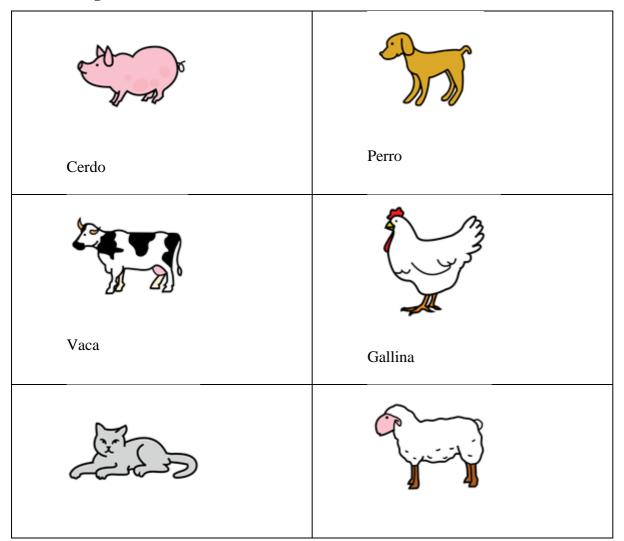


Image 9
Pictograms animals



Gato	Oveja
Caballo	Paloma

Image 10
Pictograms routines

8	
Dormir	Despertarse
Domin	Desperturse
Cepillarse los dientes	Vestirse
Desayunar	

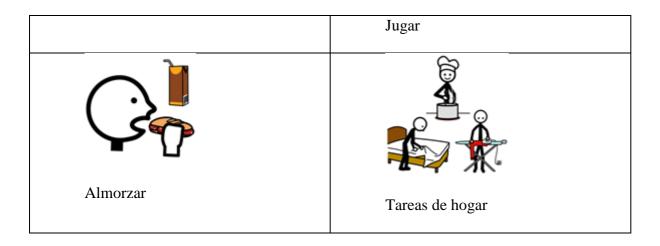
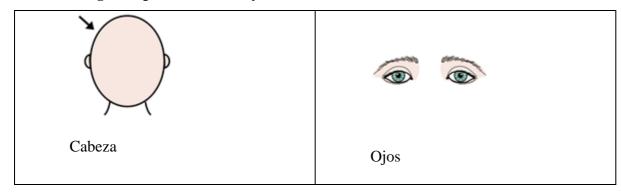


Image 10
Pictograms parts of the body



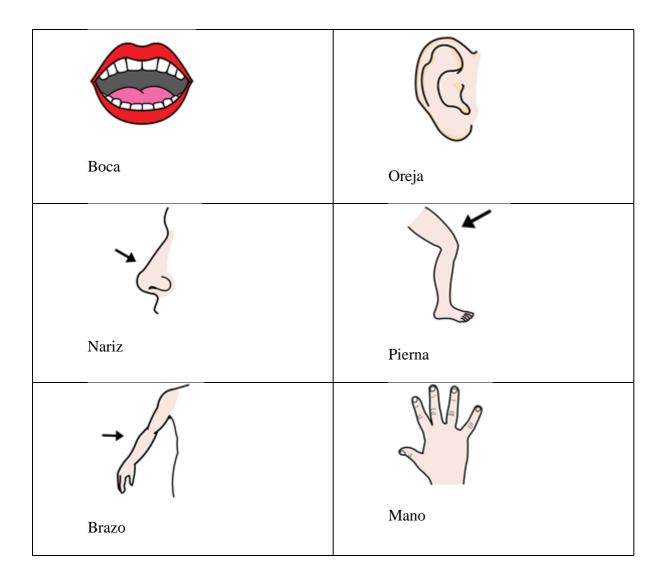
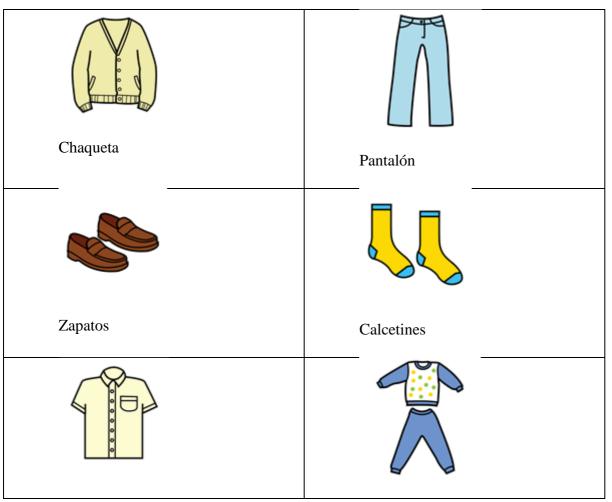


Image 11
Pictograms clothes



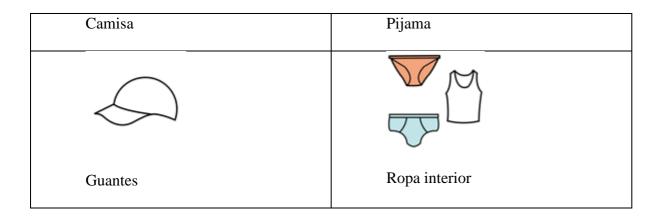


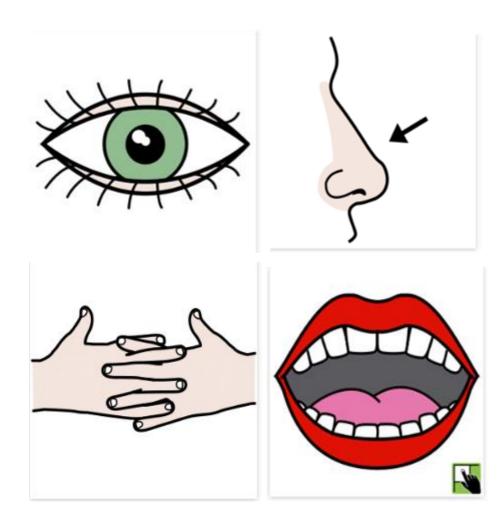
Image 12
Pictograms Routine

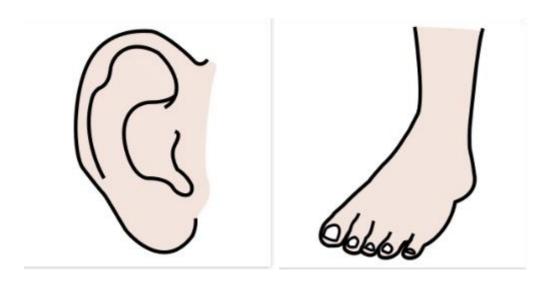






Image 13
Pictograms parts of the body





Sample lesson plan

Session 3:

Topic: Animals

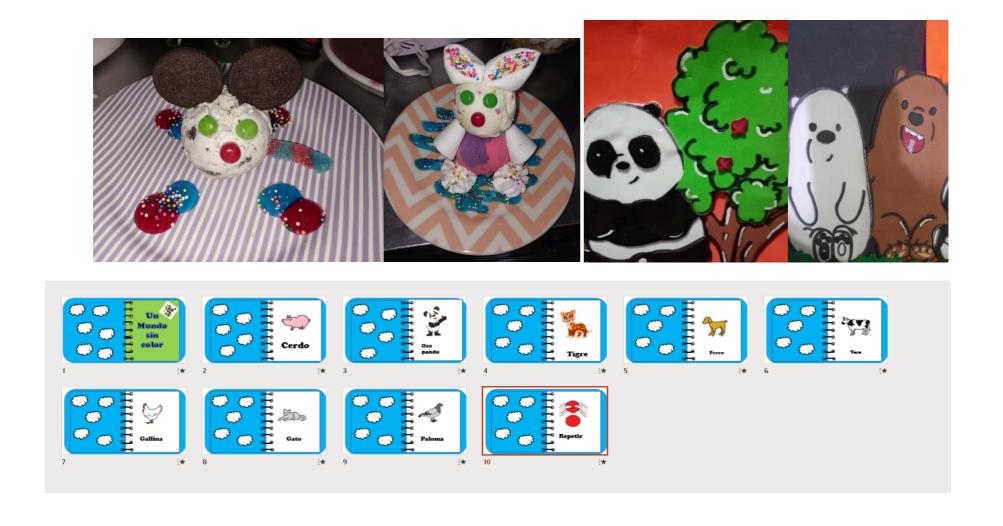
Vocabulary: (perro, vaca, osa panda, tigre, cerdo, Paloma, gato, gallina)

Objectives: To recognize the sounds' animals

To identify the reactions to the animal sound

Pa	rt Time	Activity	Resources	Executive
				Functions
Pa 1	minutes 5	Sound box •The teacher will show animals' pictograms and say the name •The teacher will play the animals' sound and associates with a pictogram •The teacher will play an animal's song and when the student listens to an animal, he points out the correct pictogram	Pictograms, visual resources, song, sound box(toy/book)	Memory Flexibility cognition
Pa 2	minutes	Textures book / textures box •The teacher will show (the book) and ask the student to identify the animals •The teacher makes the animal sound and asks the students to do it •The student touches the texture of each animal •The student touches the animal again and imitates the animal's	Texture book	Memory

	Part	15		Eating animals	Fruit	Memory
			•	.The teacher will show some		Flexibility
3		minutes		animals made of different fruit	Candy	
				, ice cream, and candy.	т	cognition
					Ice cream	



Session: 1

Topic: Meeting the child

Objective: to recognize the child's response to the teacher

	Part	Time	Activity	Resources	Executive
					Functions
	Part	5	Meeting with the child •The teachers sit down in the	Chair	Memory Flexibility
1		minutes	•The teacher waits for the response of the child. •The teacher will wear flashy clothes to stuff. To attract the attention of the child with autism	Flashy clothes	cognition
2	Part	10 minutes	Playing with the child •The teacher asks to the child for his favorite toys. •The teacher will be a space comfortable to the child and without disturb them.	Toys	Memory

			•The teacher and the child will play together.	
	Part	15	Imitating to the child •The teacher will imitate the	Memory Flexibility
3		minutes	whole movements of the child. •The teacher will try to connect to the child.	cognition

Sesión: 2

Vocabulary:(triste, aburrida, contento, enfadado, feliz, asustado, pensativo)

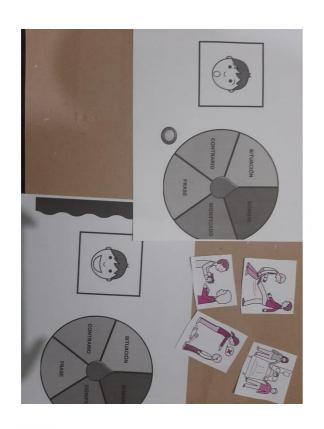
Topic: Emotions and expressions

Objective: To recognize and be aware of expressions and emotions from specific actions or daily activities

Part	Time	Activity	Resources	Executive
				Functions

Part 1	minutes	1.Breaking the ice: the teacher sits on a cushion while the student smells and touches her. 2.Singing: • The teacher will sing a song about emotions with pictograms • The teacher asks the student to imitate the pictograms from the video 3.Showing the emotions • The teacher shows the emotions with the pictograms • The teacher mimes the emotions. Then the student will imitate them, with the support to the teacher	Box with pictograms https://youtu.be/2zamWYr1IkM TV Computer	Memory Flexibility cognition
Part 2	10 minutes	Making phases: •The teacher provides some play dough •The teacher makes a face with an emotion using the play dough •The teacher will help the students to make 5 faces using the play dough. •They do the eyes, eyebrows, and mouth to express.	Pictograms, play dough Television Computer	Memory Flexibility cognition

			•The teacher says and shows the pictogram the emotion, and the		
			student tries to express the emotion.		
3	Part	15 minutes	Finding emotions •The teacher hands face down the pictograms •After that, the teacher will give a box to the child. •The child has to take a pictogram. •The teacher has a billboard in the wall •The billboard is divided into three parts emotions happy, surprise, angry and sad. •the teacher will ask to the student for a specific activity such as playing with family, go to the park, and so on. •The student should have classified in the part where he feels this emotion. •The child should stick the pictogram in the correct space	Pictograms TV Computer	Memory Flexibility cognition









Session 4 :(dormir, levantarse, cepillarse los dientes, caminar en el parque)

Topic: Daily routines

Objectives: To recognize his daily routines

To identify his reactions to his daily routines

Pa	rt Time	Activity	Resources	Executive
				Functions
Pa	rt 5	Texture book (juego sensorial)	Box	Memory
	minutes	Recognizing places •there is a box with the	pictograms	Flexibility
		pictograms about daily routines. The child will take some pictogram that it		cognition
		is inside of the box. The teacher will		
		say each activity and mimic it •The teacher will ask the		
		student if he does the activity, if he		
		does it, the teacher will draw a tick. •The teacher and the student		
		will mimic the daily routine		

Part	10	playing with family •The teacher will ask the	Balloon	Memory Flexibility
2	minutes	family to go the to the nearest park and ask them make a line. •The teacher will show the pictogram and ask the family to perform it •the teacher will be on one corner of the park with the pictograms and in the other corner the mother. the father d the child will see a pictogram, then they will run where his mother is located and will imitate the routine that before saw it. • This activity will be repeated with the whole members of the family.	pictograms	cognition Sense of activity
Part 3	15 minutes	Doing a schedule •the teacher will show the spinner. •After that, the teacher will show the pictograms, and the teacher will imitate them. •The teacher will stick them mimic them, and finally the child and	Pictograms, carton, and paintings	Memory Flexibility cognition Sense of activity

the teacher will paste them on the spinner.

The activity that the child did.
The child will painting
•The students will spin the spinner and mimic the daily routine

assigned



Session 5: (boca, orejas, manos, pies, piernas, dedos, cuello, ojos)

Topic: Parts of the body

Objectives: To identify body parts to develop self-awareness,

To Recognize the body as a means of expression and communication

P	Part	Time	Activity	Resources	Executive
					Functions
P 1	Part	5 minutes	Dancing with your body •The teacher plays the song "El baile del cuerpo" •The teacher and the student listen to the song first. •After that, the teacher will imitate the steps of the song. •The student and the teacher will dance and imitate the movements of the song •This activity will be repeated twice •The teacher displays pictograms as you listen to the song.	Song https://www.youtube.com kTA TV Computer	/watch?v=z6DoPp- Cognition Memory Flexibility cognition
2 P	Part	10 minutes	recognizing the body parts and clothes	pictograms, body	Memory

		•The teacher will show the pictograms about the parts of the body •After that, the teacher will touch the parts of the body and asks the students to touch them too •Also, the teacher will show a body that the child can touch it, and to put the pictograms in the body.		
Part 3	15 minutes	matching the name and the part of the body •the teacher will show the pictograms to the child. •the teacher has papers with the name of a specific part of the body •the teacher says one name, and the student should give the pictogram with the correct part of the body. •at the same time, the teacher will imitate or show a specific part of the body.	Pictograms Television Computer	Memory Flexibility cognition