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**THE IMPACT OF INCLUSIVE CLASSROOM ON ALGERIAN
SECONDARY SCHOOL AUTISTIC LEARNERS**

Dissertation Submitted to the Department of Foreign Languages in Candidacy for the
LMD Master in English Language and Communication

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DECLARATION

We declare that this thesis entitled the Impact of Inclusive Classroom on Algerian Secondary School Autistic Learners contains no materials that have been submitted previously, in whole part or part, for the award of any academic degree or diploma, except where otherwise indicated, this thesis is our own work.

DEDICATION

To my dear parents for their endless love and support. To my precious husband for his encouragement, help and understanding. To the candles of my life, my prince Abderrahim and my lovely princesses Rihem and Ranim. To my sisters and brothers, as well as my nephews and nieces.

Assia

I dedicate this work to my beloved parents for supporting me throughout my life and giving me strength to reach all my dreams. To my dear sister Badiaa who has always been by my side. To all the teachers who have contributed to my education from primary school till university especially Mrs BELKHIR who has made a great impact on me.

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Aimen

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Abstract

Autism Disorder (AD) is a very complicated disability. It may be caused by viruses and vaccinations, genetic and environmental factors. Children with autism spectrum disorder developments look different from those with a normal development. Social skills are typically poor when it comes to ASD babies. The number of autistic students has recently increased considerably in the Algerian society. In fact, most teachers find it challenging to include autistic pupils in the classroom. However, very much is possible with extra efforts and energies.

The purpose of this study was to find out the challenges that are faced by teachers in the classroom, as well as the strategies they use to deal successfully with pupils with autism. This research was conducted utilizing a survey design. Data for this study were collected by means of a questionnaire.

Analysis of both the related literature and the collected data suggests that Algerian teachers need a new pedagogical formation to successfully work with autistic pupils. Also, additional efforts should be made by teachers and special attention should be paid to autistic pupils. A quantitative study was used to generate knowledge and create understanding from the perspectives of Algerian high school teachers.

Résumé

Le trouble autistique (TA) est un handicap très compliqué. Il peut être causé par des virus des vaccinations, des facteurs génétiques et environnementaux. Les enfants atteints de troubles du spectre autistique semblent différents de ceux qui ont un développement normal. Les compétences sociales sont généralement insuffisantes lorsqu'il s'agit des enfants atteints de TSA. Le nombre d'étudiants autistes a récemment augmenté considérablement dans la société algérienne. En fait, la plupart des enseignants trouvent des difficultés afin d'inclure des élèves autistes dans la classe. Cependant, tout est possible avec les efforts et les énergies supplémentaires.

Le but de cette étude était de découvrir les défis auxquels les enseignants confrontent en classe, ainsi que les stratégies qu'ils utilisent pour gérer les élèves autistes avec succès. Cette recherche a été menée à l'aide d'un plan d'enquête. Les données de cette étude ont été recueillies par le biais d'un questionnaire.

L'analyse de la théorie et des données recueillies suggère que les enseignants algériens ont besoin d'une nouvelle formation pédagogique pour travailler parfaitement avec les élèves autistes. D'autant plus, la mise en oeuvre des efforts supplémentaires par les enseignants et une attention particulière doit être portée aux élèves autistes. Une étude quantitative a été utilisée pour générer les connaissances et créer une compréhension de point de vue des enseignants algériens au niveau du cycle secondaire.

ملخص

اضطراب التوحد هو إعاقة معقدة جدا. يمكن أن يكون سببه فيروسات التطعيمات، الوراثة والعوامل البيئية. يبدو الأطفال المصابون باضطراب التوحد مختلفين عن الأطفال الذين يتطورون بشكل طبيعي. تنقص المهارات الاجتماعية بشكل عام عند هؤلاء الأطفال. في الآونة الأخيرة، زاد عدد الطلاب المصابين بالتوحد بشكل كبير في المجتمع الجزائري. فأصبح معظم المعلمين يجدون صعوبة في تضمين الطلاب المصابين بالتوحد في الفصل الدراسي. إلا أن، كل شيء ممكن مع بذل الجهود والطاقت الإضافية.

الغرض من هذه الدراسة هو الكشف عن التحديات التي يواجهها المعلمون في القسم، بالإضافة إلى الاستراتيجيات التي يستخدمونها لإدارة التلاميذ المصابون بالتوحد بنجاح. تم إجراء هذا البحث باستخدام خطة المسح. تم جمع بيانات هذه الدراسة من خلال استبيان.

يشير تحليل البيانات التي تم جمعها إلى أن المعلمين الجزائريين بحاجة إلى تدريب تربوي جديد للعمل بشكل مثالي مع الطلاب المصابين بالتوحد. بالإضافة الى ذلك، يجب بذل مجهودات إضافية من قبل المعلمين وإيلاء اهتمام خاص للطلاب المصابين بالتوحد. تم استخدام دراسة كمية لتوليد المعرفة وخلق فهم لوجهة نظر المعلمين الجزائريين على مستوى مرحلة التعليم الثانوي.

List of Abbreviations

ADDM: Autism and Developmental Disabilities Monitoring
ADI-R: Autism Diagnostic Interview-Revised
ADOS: Autism Diagnosis Observation Schedule
APA: American Psychiatric Association
ASD: Autism Spectrum Disorder
ASQ: Ages and Stages Questionnaires
CDC: Center for Disease Control and Prevention
CHARGE: Childhood Autism Risk from Genetics and Environment
COVID-19: COronaVirus Disease 2019
CRPD: Convention on the Rights of Persons with Disabilities
CSBS: Communication and Symbolic Behavior Scale
LAD: Language Acquisition Device
M-Chat: Modified Checklist for Autism in Toddlers
PEDS: Parent's Evaluation of Development Status
SLCN: Speech, Language, and Communication Need
SLP: Speech-Language Pathologist
STAT: Screening Tools for Autism Rating Scale
TS: Tube Sclerosis

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General Introduction

Child development has always attracted many researchers' attention. It is the combination of several occurring changes. According to Perkins (2002) "Language is an emergent consequence of the interaction between cognitive, linguistic and sensorimotor processes" (p.3). It is considered an integrated faculty that develops in parallel with the development of biology (physical development), thinking (cognitive development) and behavior (socio-emotional development) (Levine & Munsch, 2011).

Caring for children with special needs is considered as a real challenge nowadays as many services are needed to integrate them into normal life with others. Autism is one of the special categories that is deemed to be inscrutable by several psychologists, educators, and even philosophers because of the continuously growing number of children diagnosed with autism. Many studies were conducted focusing on them to know the treatment methods and the possibility of devising educational therapeutic programs to help parents and supervisors to modify their children's behavior.

The three first years of the child's life are considered as the most important years of his/her life affecting his/her development. These years are seen as the period of the growth and the maturity of the brain in which the child acquires all the skills of the mother tongue. However, it is not the case for autistic children.

Parents often learn about the diagnosis of their children before attending school and use different strategies to help them cope with difficulties that the child may face throughout the day. However, when these children reach school age, they spend most of their day in a school environment (Betts, et al., 2007) currently, the majority of autistic children do have cognitive disorders (mental delays), but others have average intelligence (Eric Zander, 2004). Therefore, the change of setting may cause anxiety for most children and especially autistic ones (Mesibov & Shea, 1996). Students with Autism Spectrum Disorder are more difficult to be included than pupils with other special educational needs (SEN), and research indicates that they are more likely to be excluded from school than any other group of students (Barnard, J. 2000). Teachers have a significant role in the positive inclusion of ASD pupils. Teachers of students with ASDs experience conflicts as they cope with the social and emotional challenges these students have, and these conflicts may determine the quality of teacher-student relationships. (Stacey, et al., 2007).

Chapter One, Introduction

1.1 Background of the Study

Inclusive education for pupils with ASD is one of the most complex and poorly understood areas of education (Humphrey & Lewis, 2008). However, calls have been made for more studies into successful instructional methods and solutions for this community of learners (Humphrey & Parkinson, 2006). We have decided to conduct this research into the inclusion of students with ASD in inclusive classrooms. Before our educational inquiry, we had no prior knowledge about ASD, nor its group of people. However, except for a small number of articles (e.g. McGregor & Campbell, 2001); this aspect of inclusion remains somewhat under-explored in ASD science.

1.2 Statement of the problem

The Algerian secondary school teachers face many challenges while dealing with pupils with ASD. One of these challenges is including those children in their classes.

1.3 Rationale of the Study

Many studies were conducted on children with ASD focusing on their psychological and mental development. However, a little attention was given to the educational therapeutic programs that are likely to modify those Children's behaviour in class.

1.4 Aim of the Study

-The goal of this study is to investigate the challenges that are faced by teachers in the classroom.

-The research aims at exploring the strategies teachers use to deal successfully with pupils with autism in the class.

1.5 Research Questions

The main concern of the present study is to find out how teachers meet the needs and teach autistic students in an inclusive class.

1-What are the challenges that Algerian high school teachers face in the classroom?

2-How do Algerian high school teachers include autistic pupils in the classroom and support them?

3-How do Algerian high school teachers perceive the inclusion of autistic pupils?

1.6 Hypothesis

In the light of the research questions, it is hypothesized that:

The Algerian secondary school teachers are not familiar with learners with special needs (Autistic Learners) and they find difficulties to include them in their classes, ignoring the appropriate strategies they need to use to deal successfully with them.

1.7 Research Methodology and Tools

The research used a cross-sectional survey method, including both open and closed response formats. The participants were 19 Algerian high school English teachers, 14 females (73.68%) and 5 males (26.32%). 31.59 % of participants had 1-5 years of experience. 42.1% of the participants have 5-10 years of experience. 26,31% of participants have 10 or more years of experience. We collected all data from survey respondents using questionnaires at the end of spring 2020. They covered: gender and teaching experience [3 items], whether they have dealt with an autistic student [3 items], perceptions of inclusion within their school [5 items], the factors that affect the successful inclusion of autistic students and the skills to be improved [8 items]. And finally, whether the autistic students succeeded in their studies [1 item].

1.8 Structure of the Dissertation

Our research paper consists of an introduction to the topic and three chapters. Chapter one contains a review of literature, which includes the main causes of autism, along with the obstacles which are faced by both teachers and Algerian learners, and overcoming challenges and supporting inclusive education. Chapter Two is about the methodology of this study, including information about the participants and data collection and analysis. The last chapter discusses the findings that emerged from a questionnaire that was directed to 19 participants. Finally, it ends up with a conclusion.

Chapter Two,Literature Review

2.1 Introduction

This chapter provides a theoretical framework for this study. As noted within the introduction, students with ASDs are tougher to be included than pupils with other special educational needs (SEN), and research shows that they're more likely than the other student group to be excluded from school. (Barnard, Prior and Potter, 2000; Department of Education and Skills, 2006; National Autism Society, 2003). This chapter begins with the definition, the causes, and the characteristics of autism. It also highlights the theories behind these characteristics. This chapter explores the challenges that teachers face when integrating students with autism into their classrooms.

2.2 What is Autism?

Autism Spectrum Disorder has been defined by many psychologists as a behavioral crisis resulting from multiple causes (Gilberg,1992). It refers to neurologic problems involving serious problems of interaction and communication. Generally, autistic people have a big challenge in making friends and grasping social rules (Karen Simmons, 2006). (Catherine & Sarah,2006) declared that: “autism is a syndrome that emerges in the first three years of life and is defined by a pattern of qualitative abnormalities in reciprocal social interaction, communication, and repetitive interests and behaviors”. From the previous definitions, we can say that autism is a developmental disorder that is diagnosed in the very early years of a child’s life. It affects all of the linguistic, cognitive, and social aspects of repetitive behaviors, and thus it affects his or her communication with others and also his or her ability of learning.

2.2.1 Historical Perspectives on Autism:

Belier defined autism in 1911, and he considered it to be one of the secondary effects of schizophrenia rather than a single disorder. (Leo Kenner, 1943)identified autism as a rare psychological condition. Bender, for example, defined autism in 1959 as a protective reaction to a central nervous system deficiency, the basis of which is a condition that cannot defend itself from inadequate distress. Bernard Rimland proposed the abiogenic autism hypothesis in 1964: The cause of the autism condition is the capacity of the infant to associate new stimuli with remembered experiences. Thereby, since the child cannot symbolize or interpret precise information, he does not use an expression to communicate and because he does not relate them to previous possible encounters, he is not receptive to his parents. Autism was first

recognized as a psychiatric disorder in the 1970s. During the 1999 National Autism Conference, James Ball defined autism as a dynamic developmental condition due to a neurological disorder that impaired brain function (Karen Simmons, 2006).

2.2.2 Prevalence :

According to the Autism and Developmental Disabilities Monitoring Network (2015), the prevalence of autism has been typically reported to be 1 in every 68 births. It has been identified in all ethnic, racial and socioeconomic groups. Males have a higher incidence; boys are approximately 4.5 times more likely (1 in 42) than girls (1 in 189).

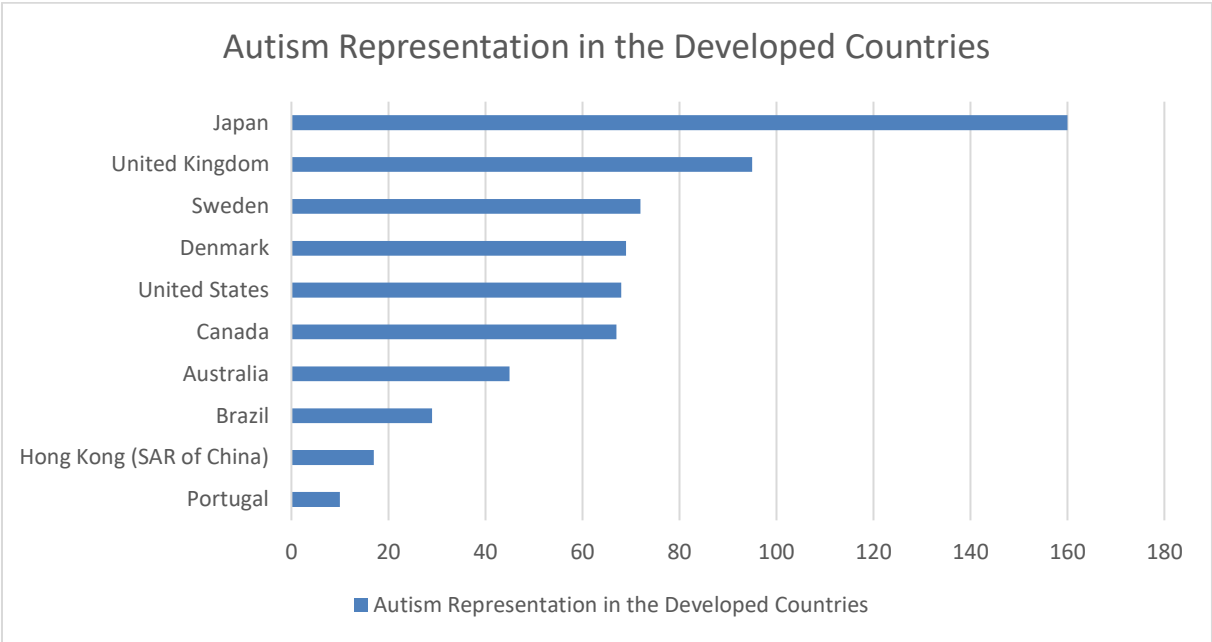


Figure 1.1: Number of Children with Autism per 10.000 Children Studied (hearingsol, 2020/ Autism Facts and Statistics Worldwide).

The statistics shown above represent a remarkable disparity in autism rates across developed countries, including the United Kingdom, Japan, Scandinavian countries, Canada, the United States. According to (Focus for Health Foundation, 2017), there are two major causes for this:

- Many countries do not share their autism rates: Few prevalence studies on autism have been conducted in developing countries, mainly due to stigma, a lack of awareness about mental health, and a lack of health infrastructure.
- The lack of globally uniform criteria for majoring autism: this may be attributed to the hardness of the diagnostic due to its characteristics and differences in the application of various ASD measurements.

With the exception of Indonesia, China, and Iran, there is little information about the syndrome in non-western countries (Samadi&McConkey, 2011). Because of the complete lack of central documentation of ASD cases in African and some Asian countries, these countries are underrepresented in the global prevalence ranking. In this case, (Samadi&McConkey, 2011) argued: Nearly all prevalence studies reviewed by (Fombonne, 2005) and (Williams, 2006), were undertaken in Western countries or Asian affluent countries such as Japan. There is limited information on the identification of children with this condition in non-Western, less affluent countries where services for children with any form of special needs are less developed. This shortage of information has raised the unwarranted assumption made by some writers, that autism is rare in non-Western cultures.

Many reasons are given: First, the syndrome of autism is generally associated with stigma in developing countries; especially in the Arab world, because parents hope their child to attend schools for ordinary developing students rather than being referred to special schools, they may underreport the child's difficulties to assessors even if they are aware of them. Second, screening tools rely heavily on parental reports, with little time and opportunity for assessors to observe and interact with the child and reach consensus decisions, in developing countries. By contrast, in developed countries, parents may be eager to obtain a diagnosis for their child's difficulties as it allows them to access additional services that are not readily available in developing countries. Third, children with associated conditions like intellectual disabilities and epilepsy may have been diverted from educational services at a younger age and, hence, are not included in the screening for elementary school pupils. Moreover, childhood mortality for more seriously affected children may be higher, particularly in poorer areas. All of these factors would decrease the prevalence of ASD in Western countries which has developed health and education systems.

2.2.3 Symptoms:

Autism spectrum disorder signs and symptoms are frequently visible as early as infancy (Scheuermann& Webber, 2002). The first indicators, according to the American Psychiatric Association ' (2000), fall into four broad categories:

- Socialization
- Sensory functioning
- Language
- Cognitive functioning

2.2.3.1 Socialization :

Differences in social interaction are frequently observed in autistic children at a young age. As a result, children with ASD frequently exhibit different facial expressions or a lack of interest in objects from infancy (Baranek, 1999). A child with autism, for example, may not smile when cooed at or may smile or laugh when there is no environmental cue to do so.

2.2.3.2 Sensory Functioning :

Sensory differences are common in young children with ASD. Atypical sensory responses can occur with any of the five senses: visually, auditory, tactile, olfactory, and/or taste (Goin & Myers, 2006). Some autistic children, for example, are bothered by bright light, while others appear deaf when their names are called. Many autistic children have a preference for a specific thing, such as one type of food. Self-stimulation may also be associated with atypical sensory preferences. Self-stimulatory behaviors in autistic children are typically repetitive. Children with autism exhibit stereotypical behavior from an early age, such as rocking, twirling objects, and flapping their hands. (American Psychological Association, 2000) Each autistic child has his or her stereotypic behavior.

2.2.3.3 Language :

Young children with ASD frequently use their distinct behavioral responses to communicate. Approximately half of all autistic children never develop expressive language (Gleason, 2005). They do not use language to socialize or to get their needs met. Although these children's expressive language is impaired, their receptive language is frequently thought to be stronger. Children may demonstrate the ability to use sounds and words, but they may do so in an unusual manner (Scheuermann & Webber, 2002). Other children exhibit echolalia or the act of repeating what others say. As an example:

A (normal person): How are you doing?

B (autistic child with echolalia): How are you doing?

In this case, the autistic child repeats what was asked rather than responding, resulting in echolalia.

2.2.3.4 Cognitive Function :

Cognitive functioning is linked to language, social, and motor development in infancy. As a result, if a child is impaired in at least one of the areas mentioned, there is a good chance that it is also impaired.

2.2.4 Diagnosis:

ASD symptoms typically appear in early childhood. According to US Department of Health and Human Services, autism can sometimes be detected at the age of 18 months. Most parents' first concerns when their children visit a specialist are speech and language delays. To make an ASD diagnosis, professionals must assess the child's social interaction, communication, play, and other behaviors by interviewing parents as well as observing and talking to the child. After 24 months, a diagnosis by an experienced professional can be considered very reliable. Assessment of an autistic child is a multidisciplinary process that may involve many professionals, one of which is a speech-language pathologist (SLP). An SLP collects data on communication development. It consists of speech (the use of sounds to form words), receptive language, and expressive language. If the autistic child is unable to communicate verbally, the SLP will try to find other ways for him or her to communicate. Whereas, for verbal children with ASD, the SLP evaluates pragmatic language; that is, the ability to use socially appropriate language and nonverbal cues in various situations. Professionals can use a variety of developmental screening tools to assess a child's development. These are some examples:

- Ages and Stages Questionnaires (ASQ)
- Communication and Symbolic Behavior Scales (CSBS)
- Parent's Evaluation of Development Status (PEDS)
- Modified Checklist for Autism in Toddlers (M-CHAT)
- Screening Tools for Autism in Toddlers and Young Children (STAT)
- The Childhood Autism Rating Scale (CARS)
- The Autism Diagnostic Interview-Revised (ADI-R)
- Autism Diagnostic Observation Schedule (ADOS)

2.3 Causes of Autism:

2.3.1 Viruses and Vaccination

Some research has led to reports of ASD cases linked to maternal women's exposure to certain viruses (measles, mumps, rubella, herpes, syphilis, cytomegalovirus, and toxoplasmosis) and chemicals (thalidomide and valproic acid). However, the proportion of such cases is very low (Hertz-Picciotto, et al., 2006). There is also some evidence that the preservative thimerosal may be linked to certain cases of childhood vaccines – data is mixed here as well. Several large-scale experiments, such as the CHARGE (Childhood Autism Risk

from Genetics and Environment) study at the University of California-Davis, have been set up to try to understand the relationship between environmental factors and the aetiology of ASD. (Autism's Son-Rise Program). Andrew Wakefield established the link between vaccines and autism in 1998 (cited in Richards, 2011) when he conducted an experiment with 12 children to demonstrate the link. (Prizerowicz, 2015).

2.3.2 Genetics

Another possible cause of autism is genetic mutations in the affected person's genome. Autism is linked to mutations in genes that encode proteins involved in molecular machines that regulate synaptic protein synthesis. Autism may be caused by Fragile X Syndrome and Tube Sclerosis mutations (TS). All of these syndromes are caused by abnormal MRNA translation, which results in excessive protein synthesis (Preiserowic, 2015). Some genetic mutations appear to be inherited, whereas others appear to occur spontaneously (Mayo Clinic, 2018). According to twin studies, monozygotic (identical) twins have a 60–90% concordance rate of autism, whereas dizygotic (non-identical) twins have a 0–24% decrease in risk. 13 want to have relationships, even close ones, but don't know how (Sterling, et al.,2002).

2.3.3 Affective Development

In general, infants with autism have fewer facial expressions, and fewer of them are directed at other people. Retrospective video research has revealed a lack of social smiling in autistic toddlers. (Swettenham, et al.,2003) established that 20-month-old babies with autism had deficits in social orienting, as evidenced by shorter intervals of looking at people when compared to youth with typical development and those with developmental delays (Watson, et al.,2003).

2.3.4 Sensory Processing, Attention, and Self-Regulation

Phenomenological accounts by autists recalling children's memories and historical studies on the parents of autistics children and/or clinical records, reveal many signs of emotional distress and/or disruptions in the first three years of life. These include aversion to social contact, hypersensitive tone, avoidance of certain food textures, poor visual perception orientation, a lack of pain response and focus on concerns about the sensory properties of items (Watson, et al., 2003).

2.3.5 Praxis and Imitation

Early detection and intervention for autistic children are critical for imitative skills. This 20-month protocol was documented by (Charmin, et al., 1997). Children with autism who are older have less skill in imitating procedural behavior on items than children with normal

developmental delays. (Stone, et al.,1997) discovered that skills are closely related to a child's ability to mimic in other areas, such as language and play. Effective imitation is also concerned with comprehending both the social and communication experience as well as the sensor motor requirements of the task. Several studies have proposed that younger adolescent adults with autism develop internal representations of visually represented gestures. (Watson, et al., 2003).

2.3.6 Communication

According to studies, approximately 40% of autistic children are not fully able to speak, and 25% to 30% develop few language skills at an early age, even though they do not appear to be able to speak later. Other autistic children may start speaking later in life (Schopler E, et al.,1980). Autism is characterized by delayed or absent linguistic development, which is not compensated for through the use of other nonverbal communication skills. Eye contact is no longer an important consideration for analysis in sentences of an absolute degree of eye contact, though it may be reduced in autistic young adolescents (Swettenham, et al., 1998).

Everyone, however, has difficulty initiating and maintaining communication, and everyone has deficiencies in the language of perception. Deeper meaning perception is particularly hampered. Even those with a large vocabulary who speak spontaneously. It is common for them to have a consistent and literal interpretation of language (Zander E., &Spellerberg, T. S.,2004). Autistic children frequently experience a variety of communicative difficulties, including echolalia (repetition of the same sentence several times), difficulties with pronouns, difficulties with body language (not using or responding to common gestures), and a failure to understand sarcasm or jokes (Whitehouse AJ, et al., 2014).

2.3.7 Behavior

Children with autism frequently engage in repetitive and stereotypical behaviors, desires, and acts. Fixations on specific issues, as well as fixations on extremely complex patterns and rituals that must be repeated each time, are common. Any transition, such as taking on a new role or performing unusual tasks, can be difficult for an autistic person to manage (Eric Zander, 2004).

2.3.7.1 Patterns of Behavior:

Autistic children may exhibit the following symptoms:

- Recurrence of certain behaviors (flapping hands, jumping, etc.).
- Excessive activity.
- Concentration on specific objects or activities.

- Specific routines that must not be changed or they will become enraged.
- Highly sensitive to sound, touch, and light.
- Incapable of imitating the actions of others.
- Unusual eating habits, clumsiness.
- Acting without considering the consequences. (Impactive).
- Adversarial behavior (with self and with others).
- Inability to maintain attention for an extended period of time (Robins DL et al, 2001). Et al

2.4 ASD and Linguistics

The lack of communication is the most prominent symptom of ASD. Patients show language symptoms. This may be related to lesions in language regions in the brain.

2.4.1 Language-Related Symptoms

According to (Brown& Elder, 2014), children exhibit difficulties in receiving, processing or producing language and have difficulty using it (p. 220). They also have pragmatic problems; they tend to misinterpret indirect statements. Children with autism develop atypical communication styles such as echolalia, contact gestures, reversed pronouns and neologisms (see table one). Eventually, they become indescribable events and ask for information or comment with a statement. Instead, they might grab your hand and take you to the kitchen to get them food.

Echolalia is defined as a condition of repeated speech, whether communicating, learning a language, or practising a language. This condition is a normal part of language development, affects learning children by the age of two, and goes away by the age of three. Patients begin to repeat what they hear and mix speech patterns to form meaningful sentences. In addition, if children with autism have delayed language development, echogenicity can also affect them. Unlike typical language development, echolalia is evident in children with autism as it continues into old age. It can be divided into two types: immediate echolalia where the child repeats the speech immediately, and delayed echolalia where the child repeats the speech after some time (Prizant&Rydell, 1984, p.183).

Table 1:Language-Related Symptoms of ASD

Term	Definition	Example
Echolalia	Children repeat what has been said to them either immediately or after some period of time.	Parent: “Do you want a drink?” Child with ASD: “Do you want a drink?” Child with ASD repeats question

		instead of providing an answer.
Contact gestures	Children use other people as a tool to get what they need or want. The gesture is not symbolic.	Child with ASD grabs adult's hand without making eye contact and drags to the television to get the adult to change the channel.
Reversed pronouns	Children use first (I, me) and second pronouns (you, he, she) incorrectly.	Child with ASD: "You want to go to the park." TD child: "I want to go to the park."
Neologism	Children create a word or assign a new meaning for a word that is not socially accepted	Child with ASD is given popcorn during a movie about a dog named Rebel. The next time the child wants popcorn, he/she asks for "Rebel." The word Rebel is a neologism for popcorn.

(semanticscholar, 2014 /Communication in autism spectrum disorder: a guide for pediatric nurses. (Brown & Elder, 2014).

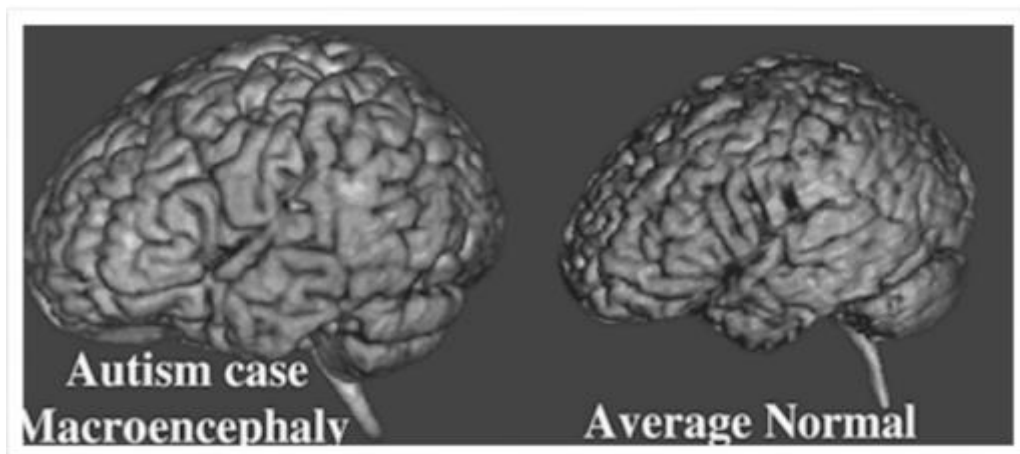
2.4.2 ASD Effect on Language-related Areas

Studies have shown that neuro-developmental disorders occur due to brain dysfunction affecting language-related areas, which ultimately impair the ability of children with autism to communicate. Typically, children's brains undergo significant changes in volume and synapses between the ages of one and four. Infancy to preschool is a period when children develop cognitive, social, language, and motor skills. More specifically, this is also the stage at which the manifestations of ASD symptoms demonstrate that any brain lesions affecting language ability occur in that particular period (Courchesne, 2002, p.21). In children with ASD, brain volume initially appears to be normal; however, 2 years later, magnetic resonance imaging (MRI) results show above-average brain enlargement (Courchesne, 2002, p.22).

Other research suggests that brain volume may occur in the left hemisphere, which could explain language deficits (McAlonan et al., 2005, p.268). According to (Just, et al., 2004), examining connectivity between brain regions will reveal which regions are associated with specific functions (p.1811). Children with autism were studied while performing writing and comprehension tasks. The results show that there is less integration in language-related domains. Broca's area has a lower activation rate than Wernicke's area (Just et al., 2004,

p.1812). In other words, children with ASD lack language production due to significantly reduced activation of Broca's area. Thus, abnormal brain function in children with autism appears to be evident, particularly in areas that control communication problems and language use.

Figure 1.2: Average Brain Volume Compared to ASD Brain Volume (Molecular Psychiatry, 2002/ Abnormal early brain development in autism)



2.5 Language Development in Normal Children

Psychologists and educators often use the term "language development" when talking about language acquisition in children; the process by which a child acquires the ability to perceive language rather than communicate using words and phrases. The process of language development is a gradual and progressive integration of content, form and use. Children's receptive and expressive language develops very rapidly over time, and girls are known to develop faster than boys. Therefore, the process of language development is called "mysterious" (Gleitman&Wanner, 1982) and 'magic' (Bloom, 1983).

2.5.1 Milestones of Language Development

(Lightbown& Spada,2006) use the term "developmental stage" or "Developmental order" to refer to the order in which certain features of a language are acquired. The stages of language development are universal among people. However, the age and speed at which a child reaches each milestone of language development vary from child to child. Therefore, a child's language development must be compared to norms, not to other children.

Table2. Speech and Language Development Milestones (National institutes of Health, (1996)

Milestones related to speech and language		
Birth	to	-Reacts to loud sounds
5months		-Turns head toward a sound source

	<ul style="list-style-type: none"> -Watches your face when you speak -Vocalizes pleasure and displeasure sounds (laughs, giggles, cries, or fusses) Makes noise when talked to
6-11 months	<ul style="list-style-type: none"> -Babbles (says "ba-ba-ba" or "ma-ma-ma") -Tries to communicate by actions or gestures -Tries to repeat your sounds
12-17 months	<ul style="list-style-type: none"> -Follows simple directions accompanied by gestures -Answers simple questions nonverbally -Points to objects, pictures, and family members Says two to three words to label a person or object (pronunciation may not be clear) -Tries to imitate simple words
18-23 months	<ul style="list-style-type: none"> -Follows simple commands without gestures -Points to simple body parts such as "nose" -Understands simple verbs such as "eat," "sleep" -Correctly pronounces most vowels Says 8 to 10 words (pronunciation may still be unclear) -Asks for common foods by name -Makes animal sounds such as "moo" -Starting to combine words such as "more milk"
2-3 years	<ul style="list-style-type: none"> -Knows about 50 words at 24 months -Knows some spatial concepts such as "in," "on" -Knows pronouns -Knows descriptive words such as "big," "happy" Speech is becoming more accurate but may still leave off ending sounds -Strangers may not be able to understand much of what is said -Answers simple questions -Speaks in two to three word phrases -Uses question inflection to ask for something (e.g., "My ball?") -Begins to use plurals such as "shoes" or "socks"
3-4 years	<ul style="list-style-type: none"> -Identifies colors

	<ul style="list-style-type: none"> -Uses most speech sounds but may distort some of the more difficult sounds. -Strangers are able to understand much of what is said -Able to describe the use of objects such as "fork," "car," etc. -Expresses ideas and feelings rather than just talking about the world around him or her -Answers simple questions -Repeats sentences
4-5 years	<ul style="list-style-type: none"> -Understands spatial concepts such as "behind," "next to" -Understands complex questions -Says about 200 - 300 different words -Describes how to do things such as painting a picture -Defines words -Lists items that belong in a category such as animals, vehicles, etc. -Answers "why" questions
5 years	<ul style="list-style-type: none"> -Understands more than 2,000 words -Understands time sequences (what happened first, second, third, etc.) -Engages in conversation -Sentences can be 8 or more words in length -Describes objects -Uses imagination to create stories

2.5.2 Theories of Language Development

Several theories and methods have emerged over the years to study and analyze the language acquisition process. Main schools of thought Provide theoretical paradigms for language development processes Behaviorist Theory, Innate Theory, Cognitive Theory and Interaction/Input Theory.

2.5.2.1 Behaviorism Theory

Behavioral specialists have developed their theories by a set of experiments on animals. They noticed that, for instance, mice or birds could be taught to perform several tasks by

encouraging habit formation. Psychologists reward desired behavior (positive reinforcement). Bad behavior was not rewarded at all (negative reinforcement).

Behavioral scientist B. F. Skinner subsequently suggested this theory as a clarification for human language acquisition in speech behavior (1957). He said: " The basic processes and relations which give verbal behavior its special characteristics are now fairly well understood. Much of the experimental work responsible for this advance has been carried out on other species, but the results have proved to be surprisingly free of species restrictions. Recent work has shown that the methods can be extended to human behavior without serious modifications. (Lowe & Graham, 1998).

Skinner proposed that children imitate the language of their parents. Successful attempts are rewarded as adults who recognize the words the child says praise the child and/or give him/her what he/she asks for. So, successful expressions are strengthened and unsuccessful expressions are neglected.

2.5.2.2 Innateness Theory

Noam Chomsky criticized the behaviorism theory in 1957. Chomsky claims that children are born with language acquisition devices (LADs) in their brains. That is, they are born with the ability to organize regularities in language. According to this theory, when young children are exposed to a language, Their LAD allows them to set parameters and infer syntax principles because the principles are innate (Bigge&Shermis, 1998).

2.5.2.3 Cognitive Theory

This theory was proposed in 1936 by Jean Piaget. He believes that language is one of many human psychological or cognitive activities. Piaget's view of children the work and development of ideas had a huge impact, especially in teaching theory. His particular insight is the role of maturity in children an increasing ability to understand their world, they are unable to undertake certain tasks until they are mature enough (Wood, 1998).

2.5.2.4 Social Interaction Theory

Contrary to Chomsky's work, recent theorists have emphasized the importance of the language input children receive from their environment. Lev Vygotsky (1978) is one of the social interaction theorists. Vygotsky's theory emphasizes the fundamental role of social interaction in cognitive development as he believes that society plays a central role in the process of "making significance". He claims: "learning is a necessary and universal aspect of the process of developing culturally organized, specifically human psychological function " (1978).

2.6 Language Development in Autistic Children

Speech impairment is one of the earliest signs of autism. Children with autism generally show impairments in comprehension and production of language. Although the cause of language development problems in children with autism is unclear. Many researchers believe that these difficulties stem from a variety of conditions that affect brain development before, during, or after birth. The language development of these children depends on the intellectual and social development of the individual. Available evidence has identified three common deficits in language development in these children: early language delays (Howlin, 2003) (Weismeret al., 2010), atypical language Production (Eigsti et al., 2014), and pragmatic trouble (McCann, et al., 2007).

The language development of children with autism also has some atypical language features, such as echolalia, use of jargon and different intonation (Eigsti et al., 2011).

The echolalia is to the repetition and imitation from others' speech. Children with autism repeat what has been said either immediately or after a period of time.

Jargon is another feature of language development in children with autism in which they produce nonsense words. It plays a special role in language acquisition and development in children of this spectrum (Eigsti et al., 2007). Many children with autism use technical terms to maintain conversations or express their needs (ibid.), which are considered difficult to interpret into meaningful conversations.

In addition to the unusual speech patterns described above, individuals with autism report atypical suprasegmental features such as accent, rhythm and intonation. Often, those diagnosed with autism (McCann, et al 2007; Diehl et al, 2008). Often, those diagnosed with autism show some Atypical supra-segmental features such as Inappropriate volume of speech, flatness or intonation of singing (Shriberget al., 2001).

However, each individual with autism is unique; that is, they do not share the same characteristics. Everyone has his/her type of echolalia, his/her way of using jargon, and/or his/her type of suprasegmental features.

Children with autism may have early deficits in speech, language, and communication. Therefore, they were classified as children with speech, language and communication needs (SLCN). According to APA (2000), speech, language and communication needs are divided into three main areas:

- 1- Difficulties in developing speech sounds.
- 2- Difficulties in developing receptive and expressive language.
- 3- Difficulties in developing social communication skills.

2.6.1 Abnormal Speech Sounds Development

Children with autism have problems with pronunciation. The latter may be completely absent. Therefore, they cannot compose words and speak fluently without hesitation.

2.6.2 Abnormal Receptive and Expressive Language Development

Through language, we have receptive language and spoken language. Unfortunately, children with autism cannot enjoy these skills. Most people with autism have receptive and expressive language problems (Hardy, et al., 2010).

Children with autism have receptive language disorders; that is, they have difficulty understanding what is being said to them. Symptoms occur when a child does not seem to listen, takes no interest in things, or does not follow verbal instructions when talking to people. These symptoms start around the age of three and change from one autistic child to another. Generally speaking, receptive language goes hand in hand with expressive language. Children with receptive language disorder also have an expressive language disorder, which means they have difficulty using spoken language. We can find that children with autism express their needs in their way. Every child with autism has his way to express him/herself.

2.6.3 Abnormal Social Communication Development

Talking about communication, means the way we use language to interact with others. Autists may not have the opportunity to experience this ability. The abnormal development of social communication in children with autism has been used to define practical developmental difficulties. "Pragmatics concerns the practical knowledge that is necessary to use and interpret language appropriately for social and real-world contexts in which utterances are made" (Walenski, et al., 2006). "Pragmatics encompasses both verbal and non-verbal aspects of communication" (ibid.). However, autistic children are able to communicate neither verbally nor nonverbally. This later meant that autists were unable to use gestures and facial expressions.

2.7 Autism in Algeria

Professor Tayeb Farraji, Head of the Department of Mental Health at the French hospital, has reported that the latest figures introduced by the World Health Organization indicate that, out of 100 births, 1.6 children with autism are registered in Algeria (Aziouan, 2018). Global statistics on autism declared in 2018 that 500 000 children with autism have been registered in Algeria, numbers on which experts raised the alarm and urged parents to show caution and patience (Algerian radio, 2018). Autism is a form of nervous system condition that affects the child's behavioral and cognitive development, and "makes parents difficult to evaluate,"

according to clinical psychologist Saeed Al Shaikur, who states to the "Al-Arabi Al-Jadeed newspaper" that "the autistic child is in its first stage before reaching the age of five, it is difficult to interact socially and linguistically. Psychologist Nuria Bodhan told Al-Arabi Al-Jadeed newspaper, "Many mothers refuse to accept reality. They also refuse to agree that the child's illness is caused by psychiatric issues that the mother endured during pregnancy, "adding that" Algerian households are undergoing a social explosion due to problems that can seem to be major, but actually, she said, transient and insignificant problems (Lahiani, 2017). Autism is a type of developmental disorder that develops within the first three years of a child's life. One of the experts in the diagnosis of "Artemonia" speech at the Autism Center has more than 9 years of experience in this field: Autism is a comprehensive developmental disability; it is difficult for children with autism to communicate before they reach the age of 30 days, whether this communication is verbal or non-verbal, because they respond to things more than anyone who may happen in their environment causes their disorder and repeats physical movements or words.

Concerning the treatment methods approved in Algeria, the specialist reports that there are two methods: the 'Schoplar' program for the development of cognitive skills 'educational activities for autistic children' approved at the Duraid Hussein Hospital, where the child receives exercises for half an hour and his mother repeats them at home. As for the "Apia" method used at the Sharjah Autism Center, it is based more on the psychologist. To accompany the patient more than 11 hours a day.

2.7.1 Autism in the Algerian Schools

The autistic child faces many disturbances and problems based on the lack of understanding and the rejection of the community. It is claimed that they feel like others feel, and they enjoy the medal, which is what we stood upon while we were at the center, though the disease cannot be recognized by external appearance, but that autistic patients are generally the same. The school is the greatest challenge that parents face, as most autistic children are expelled from nursery schools and there are exploitative nursery managers who seized of occasion and ask parents to pay a double price of 25,000 Algerian Dinars per month in exchange for receiving their children.

The same incident reappears with them, and managers refuse them considering them "abnormal" even though they enjoy their intelligence and excellence in mathematical and scientific matters. The information that they keep is rapidly entrenched in their minds, noting

that the associations active in the name of this group of children have not offered them anything, so the parents are still flocking between the websites. That gives them what feeds their worries, and between the few public centers only two in the capital and a private one like the center of Birkhadem, they pay more than 12 million centimes a year, but the condition of the child relapses more and the chances of leaving the autistic world increase (Madjrab, 2013).

2.8 Inclusive Education

The inclusive classroom is a teaching method in which students with various disabilities and special needs are trained and placed in classrooms for non-disabled students. This term is most commonly used to refer to individuals who are physically and mentally impaired, such as those with visual, endurance, emotional, developmental disabilities, cognitive, behavioral, and autism spectrum disorders (Scarlett&George, 2015). As a result, the term "inclusive education" refers to a school system with a diverse range of students, and this diversity distinguishes schooling (Sip Jan Pijlet al.,2002).

2.9 Educator's Challenges in Including Autistic Students

Although children with autism spectrum disorder (ASD) are increasingly in mainstream classrooms, little is known about the problems that educators face as full class participants. Schools and parents face one of the most challenging issues which is behavioral problems of autistic children. They make efforts to provide suitable educational programs (Lord, et al., 2001). You should write just the last name and no abb of the first and middle names; do this throughout the whole document Teachers reported experiencing challenges in understanding and managing the behavior of students with ASD, barriers to social structures in school policy, lack of training, support and resources. Moreover, teachers reported challenges in creating an inclusive classroom due to lack of understanding from other teachers, students, and parents. Finally, teachers argued that lack of time prevented them from providing adequate support to students with ASD and meeting the requirements for planning and fostering an inclusive classroom (Lindsay, et al 2013).

2.9.1 Managing Behavioral Challenges

Students with autism may demonstrate some unusual and challenging behavior and do not always respond to the usual methods of discipline (Lord C, et al., 2001).For example, your student with autism may start walking around the room when the normal daily routine is disrupted, as their way of expressing confusion about what's going on in their environment. The child with autism may also begin to jump because this movement distracts him or her

from a disturbing noise. Any behavioral intervention plan must be based on an understanding of the characteristics of autism as well as knowledge of the strengths and needs of the individual student (Brenda Smith Myles, 2005). Action plans should be developed through a collaborative problem-solving process involving all key students, including parents, classroom teachers, special educators, and teacher assistants. Others may also be involved, such as principals, psychologists, behavioral consultants, speech-language pathologists, and occupational therapists (Linda A. Hodgdon. Troy, 1999).

2.10 Challenges and Supporting Inclusive Education

2.10.1 Institutional Structures to Support Inclusive Education

Institutional structures at the government level need to work towards implementing policies that support inclusive education for persons with disabilities. In many cases, disability issues are primarily dealt with by central ministries, usually the Ministry of Social Affairs or the Ministry of Health. However, it is crucial that disability is recognized as a cross-cutting issue in human rights and development and considered in all relevant ministries. In the case of inclusive education, concrete policies, plans. Yet, inclusive education also requires action from other relevant ministries. To ensure a holistic and holistic approach, action needs to be taken by ministries that focus on other sectors, such as B. Transport, Planning and Human Resource Development (David,et al., 2019).

The CRPD calls for the establishment of a national framework for its implementation and monitoring consisting of one or more ‘focal points’ within the American government, the possible establishment of a ‘coordination mechanism’ to promote, protect and monitor implementation, and the designation or establishment of an independent monitoring mechanism. This framework, which must also include the participation of persons with disabilities and their representative organizations, should be harnessed to ensure the advance of implementation of inclusive education and to ensure that efforts in this regard are harmonized across the government (Dutta, et al.,2001).

2.10.2 Budgeting for Inclusive Education

Budgeting for education for persons with disabilities is critical to realizing their right to education and ensuring their right to participate in development and society. Furthermore, education spending is and should be an investment, not a cost, in the formation of human capital for future generations (McGregor, et al.,1998). However, when it comes to providing equal access to education for people with disabilities, research shows that inclusive education is cost-effective and cost-effective compared to segregated schools. Allocating funding for

inclusive education can present challenges because it is much broader than the old, narrow approach to special education. Since the concept of inclusive education often needs to be more explicit at the operational level, the government still usually needs to allocate resources to it. Therefore, the focus of inclusive education must be in primary schools, followed by secondary schools. Primary education budgets must support additional demands on the system through an inclusive approach to education (Dingle, et al., 2004).

2.10.3 Overcoming Challenges within Schools

In many countries, a range of measures is needed to remove the barriers faced by students with disabilities in the educational process. They include measures related to:

2.10.3.1 The role of Teachers and Educators (educational goals)

Generally speaking, the academic desires for primary school-age youngsters with autism will encompass growing cognitive and academic skills, assisting communication and language development, and encouraging appropriate social behavior cost (McGregor, et al., 1998). As the child grows older, supplementary competencies will be brought to the child's lesson plans as they end up developmentally fabulous (Brenda, 2005).

Teachers are critical actors in inclusive education and have an incredible effect on the first class of schooling that a child receives. In many instances' instructors are under-resourced, working in overcrowded classrooms and missing the capacity to properly tackle the needs of all students. Inclusion requires adequate numbers of instructors who are thoroughly organized and trained. Teachers need to obtain aid to make possible inclusive approaches, with professional teaching aid where necessary. Teachers have to additionally get hold of training, consisting of on insurance policies and strategies to promote the proper of individuals with disabilities to take part in the educational process at all levels, to enable them to adapt the educational surroundings to meet a range of mastering needs (Deon, 2008).

2.11 Conclusion

In this theoretical chapter, we presented some definitions related to autism, historical perspective, prevalence, symptoms and causes. Besides, we talked about the relationship between autism and linguistics. Also, we compared between language development in normal children and autists including some theories about language development. Moving further in this chapter, we talked autism in Algerian schools, the challenges faced by the teachers and their roles. This review of relevant literature will be followed in the next chapter by a situation analysis and detailed description of data collection methods, then an interpretation and

discussion of the results. Finally, some suggestions and recommendations will conclude this second chapter.

Chapter Three, Methodology

3.1 Introduction:

Recently, there has been a large increase in the number of students identified with autism. These students often represent a challenge in the field of education. In addition, most teachers spend time finding arrangements for students with disabilities to help them attain their academic achievement. The current chapter attempts to describe the methodology followed by the researcher focusing on research design, approaches, the participants, data collection and data analysis procedures.

The effectiveness of the appropriate methodology depends mainly on the objectives of the study. Hence, it is essential to select properly the tools through which linguistic data are collected. Besides, we ought to determine the most suitable sample population achieving representativeness and effectiveness through this quantitative analysis that aimed to examine how teachers meet the needs and teach autistic students in an inclusive class.

3.2 The Research Design

In any research work, the research design is considered an important step; that aims at obtaining data to answer the research questions. Correspondingly, it is the overall approach of the study at hand. It refers to the philosophy or the methodology undertaken by the researcher; involving all issues which must be investigated such as constraints and choices within the research. Thus, the researcher usually goes through a general plan of data collection and procedures used in data analysis. In this respect, Mc Millan & Schumacher (1993, p.31) define it as: "...the procedures for conducting the study, including when from whom and under what conditions data were obtained. Its purpose is to provide the most valid, accurate answers as possible to research questions". Mouton (2001, p.133) in his turn argues: "To satisfy the information needs of any study or research project, an appropriate methodology has to be selected and suitable tools for data collection and analysis have to be chosen". Moreover, Parahoo (1997) defines research design as "a plan that describes how, when and where data are to be collected and analyzed". The definitions affirm the fact that any research design is deeply associated with the research questions of the study.

According to Hancock and Algozine (2017), the selection of a research design is determined by how well it allows full investigation of a research question. Our research questions strongly pointed to the need for a quantitative approach. Yet, in some instances, we sought to obtain useful information such as; what are the challenges that teachers face in the classroom? How do teachers include autistic pupils in the classroom and support them? This

methodology has allowed statistical analysis of the data. This research was conducted utilizing a survey design. The survey also proved to be an efficient means of gathering data without threatening the reliability that can occur with other means of collection.

3.3 Data Collection Method

The quantitative method is supported and favored by the fundamental sciences and is based on the construction of hypotheses that can be tested and confirmed by collecting, evaluating, and analyzing data in an empirical style. It is useful in finding facts and addressing the “what”, “when”, and “where”. It is “an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures” Creswell (2014, p.33).

Furthermore, Dörnyei (2001, p.192) points out that, quantitative research employs categories, viewpoints, and models as precisely defined by the researcher in advance as possible, and numerical or directly quantifiable data are collected to determine the relationship between these categories, to test research hypotheses and to enhance the aggregation of knowledge.

3.4 Research Tools

After selecting the topic, planning the research and organizing its steps, the researcher ought to decide which tool is appropriate to collect data for his/her study. The basic instruments for gathering data are observation, checklists, recordings questionnaires and interviews. The selection of any tool instead of the other depends on the type of research that the researcher tends to use in addition to which kind of information s/he needs, the availability of sources, and time constraint. Thus, the selected instruments guide the researcher and help him/her to measure the results, interpret them and test the hypotheses. However, it is important to consider that tools are variable in terms of their complexity, interpretation, design, and administration. This can be regarded as a sound reason for which the investigator should select carefully the ones which suit his/her purpose and serve his/her requirements. As far as our research is concerned, data was collected using a most valid questionnaire and it is viable for this study.

3.4.1 Questionnaire

According to McLeod (2018), a questionnaire is a research instrument consisting of a series of questions to gather information from respondents. We collected all the data from survey

respondents using questionnaires in spring 2022. We followed the random sampling technique to select our participants to answer the questionnaire. We posted the questionnaires in an Association of Teachers of English group. The questionnaire was directed to fifty Algerian teachers of English in secondary schools. Only 38% of the teachers (19) answered. It took them approximately two weeks to provide us with their responses. The package included a letter that explained the purpose of the study (an information sheet) and requested voluntary participation. It included 15 questions. 40% of the questions (6) were open-ended questions. 60% of the questions (9) were close-ended questions.

3.5 Participants

The participants were 19 secondary school teachers of English (14 females and 5 males). 31.59 % of participants had 1-5 years of experience. 42.10% of participants had 5-10 years of experience. 26.31% of participants had 10 or more years of experience. 10.5% of the participants were teachers of English in private schools. 89.5% of the participants were teachers in public schools.

3.6 Data Analysis:

The data from the questionnaire was collected and statistically analyzed by the researcher. The questionnaire was addressed to Algerian high school English teachers. The coded data were then grouped into two main themes deemed appropriate and consistent with the main objectives of the study. These themes are: Perspectives on inclusion in education, the factors that affect the successful inclusion of autistic students and the skills to be improved.

3.7 Ethical Considerations

In every research that contains human participants, some ethical issues must be considered:

- All of the research participants were given an invitation to participate in this research. I gave a brief explanation about what the research is about. The invitation was through social media platforms, specifically some Algerian Facebook groups (the Algerian association of secondary school teachers – the teachers of English of Ain Defla).
- All of the research participants were provided with a detailed explanation about the topic so that they could understand the different aspects of the research.

Chapter Four, Findings

This section outlines the main findings that emerged from the data analysis of the questionnaire and highlights the different themes and sub-themes that emerged.

4.1 Participant information

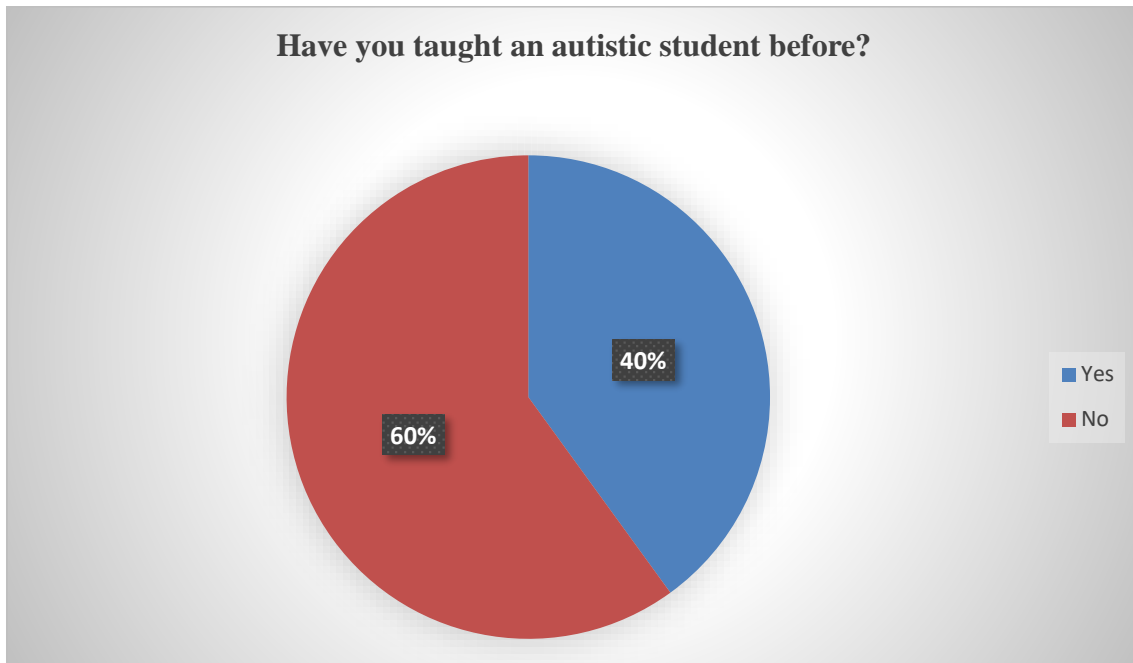
Table1: Biographical information of the participants

Participants	Gender	Teaching experience (years)	Type of school
A	Female	5-10	Public
B	Female	5-10	Public
C	Female	5-1	Public
D	Female	5-10	Public
E	Male	5-10	Public
F	Female	1-5	Public
G	Female	5-1	Private
H	Female	5-1	Public
I	Male	More than 10	Public
J	Male	5-1	Public
K	Female	More than 10	Private
L	Female	More than 10	Public
M	Female	More than 10	Public
N	Female	5-10	Public
O	Male	5-1	Public
P	Female	5-10	Public
Q	Female	More than 10	Public
R	Female	5-10	Public
S	Female	5-10	Public

Table 1 provides an overview of the biographical information of the participants. Four of the participants were males and fifteen of them were females. Six of the teachers had 1-5 years of experience. Eight of them had 5-10 years of experience and the five remaining spent more than ten years in the domain of teaching. All of the participants taught in public schools except for two who taught in private schools.

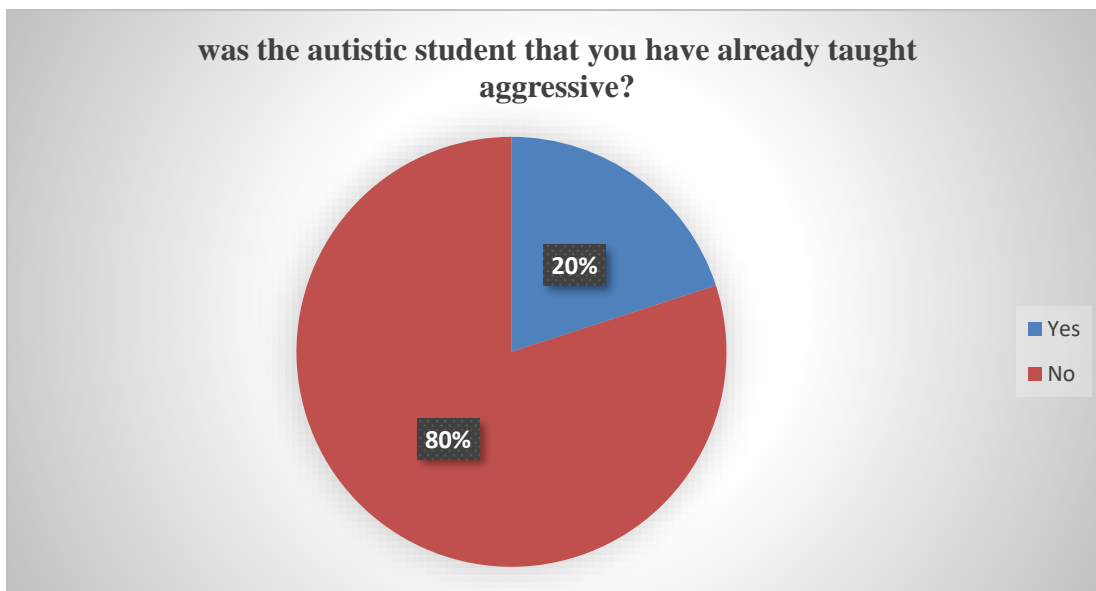
4.2 Perspectives on inclusion in education

Figure 2.1 teachers' experience with autism



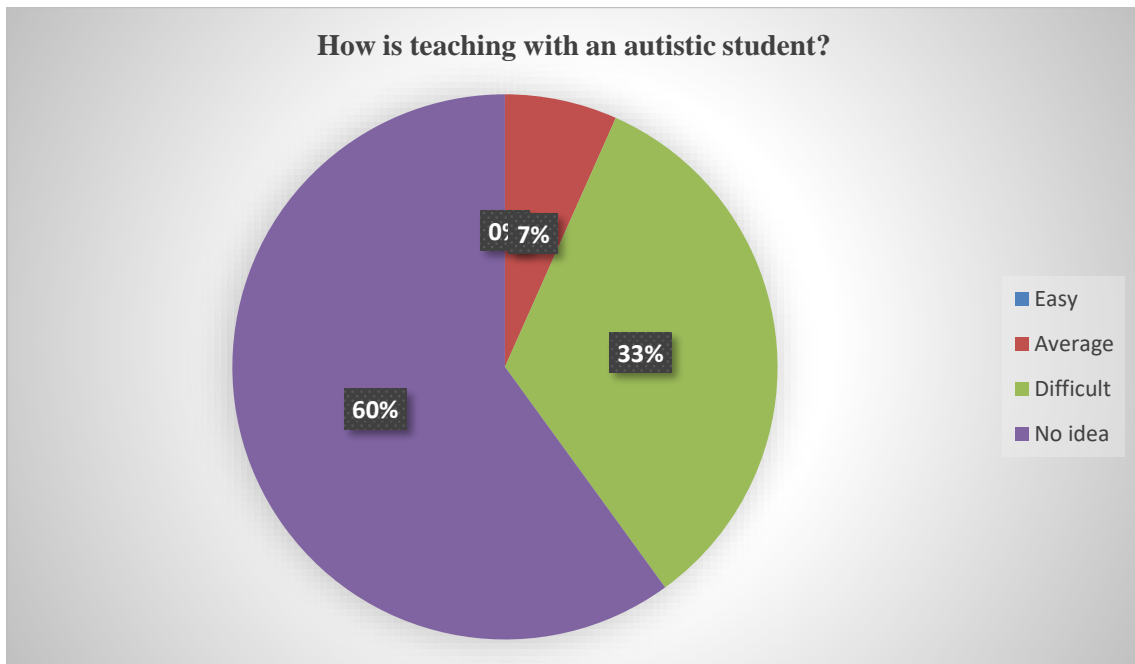
As presented in chart (1), 60% of our participants have never dealt with autistic pupils before, while 40 % of them already have.

Figure 2.2 The perspectives of teaching autistic pupils



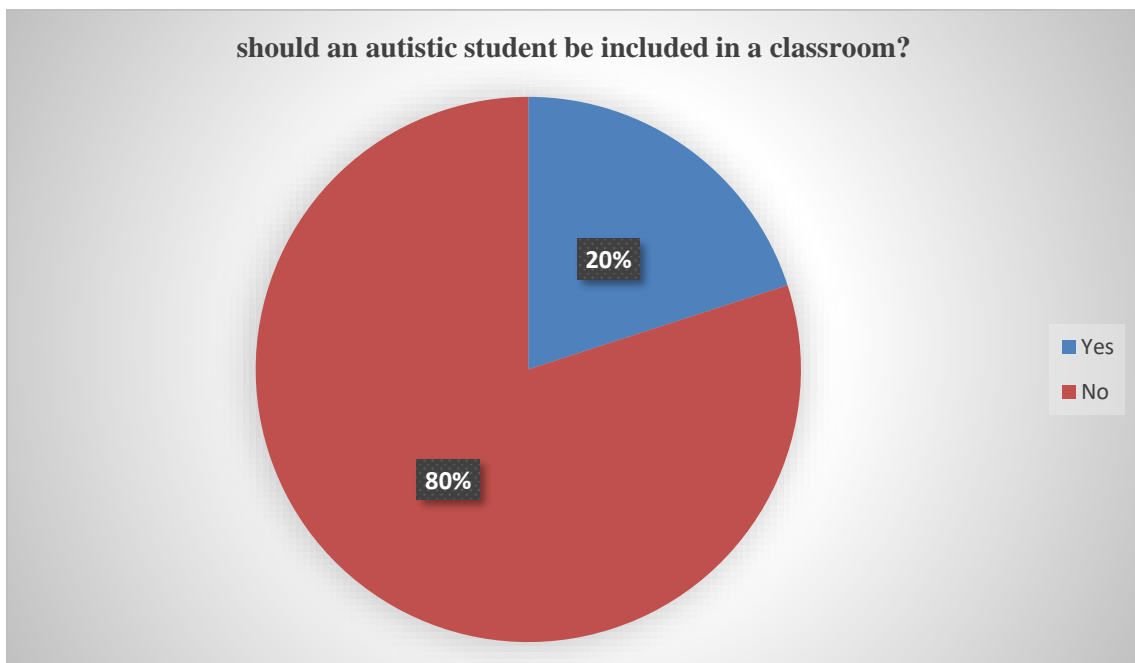
According to chart (2), 80% of teachers answered that the autistic learners that they have already taught were aggressive, whereas 20 % of them answered that they are not aggressive.

Figure 2.3 The perspectives of teaching autistic pupils



As shown in the chart (3), the majority of 60% of participants have no idea when it comes to dealing with autistic pupils. However, 33.33% found it difficult, and only 6.67% of participants considered it average. It is noticeable that none of them found it easy.

Figure 2.4 Teachers perspectives on the inclusion of autistic pupils in the classroom

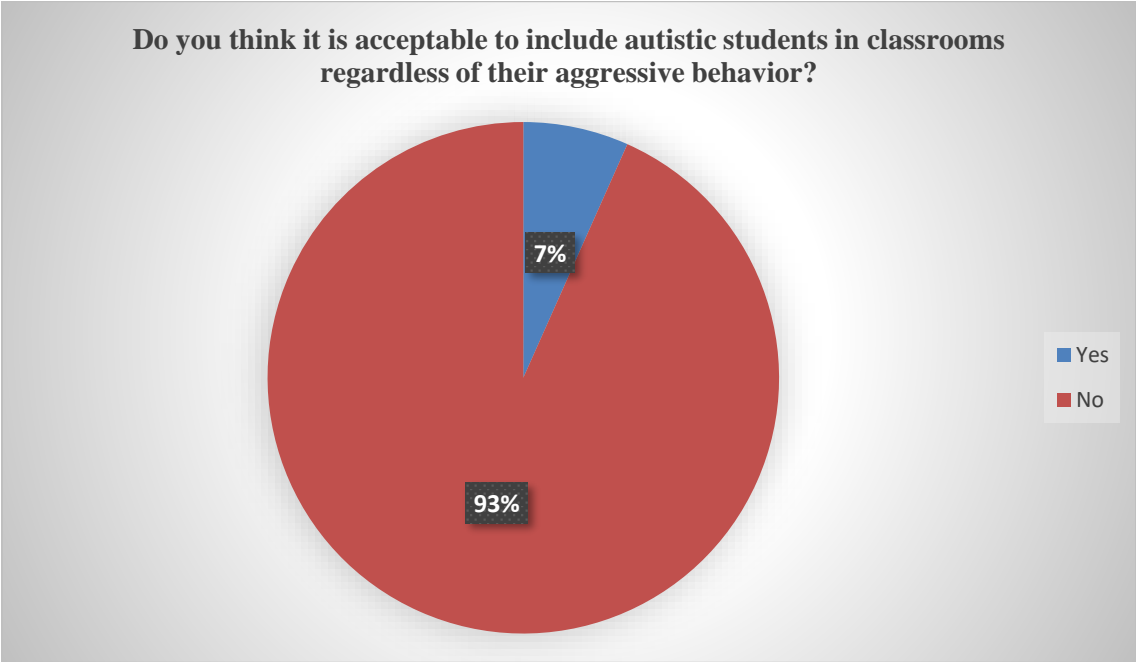


As shown in the chart (4), 20 % agreed that autistic pupils should be included in the classroom to improve interaction, communication, capacities, and adaptation to society. However, 80 % of the participants had a negative attitude due to; the need for special

treatment, delayed cognitive abilities, aggressive behavior, interaction problems, disturbing the learning process, classmate’s perturbation, and large classroom size.

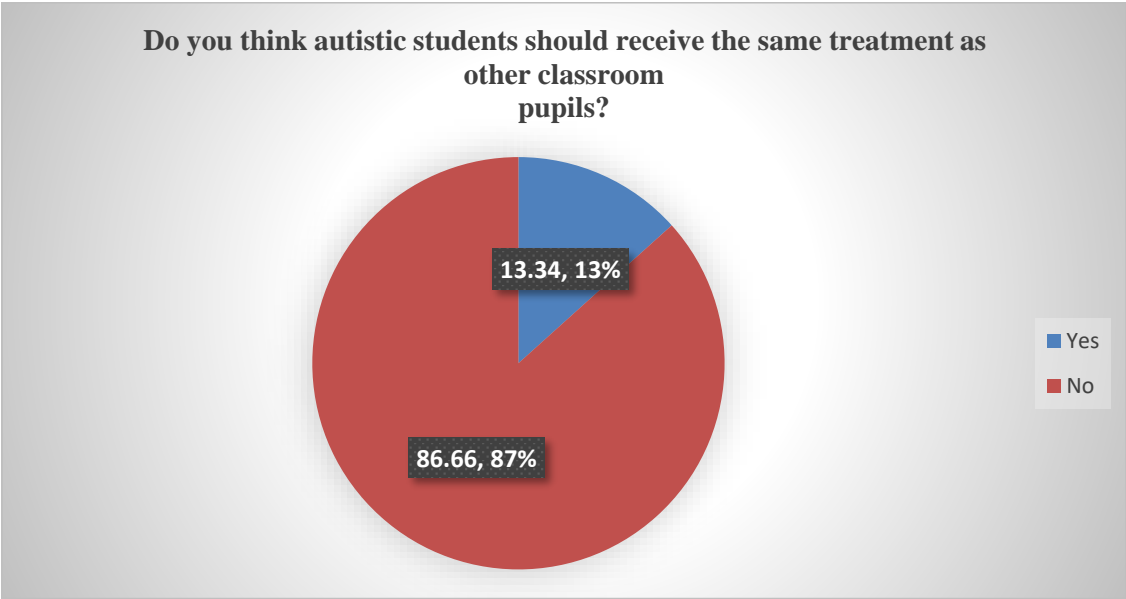
4.3 The factors that affect a successful inclusion of an autistic students and the skills to be improved.

Figure 2.5 Including autistic students in classrooms regardless of their aggressive behavior



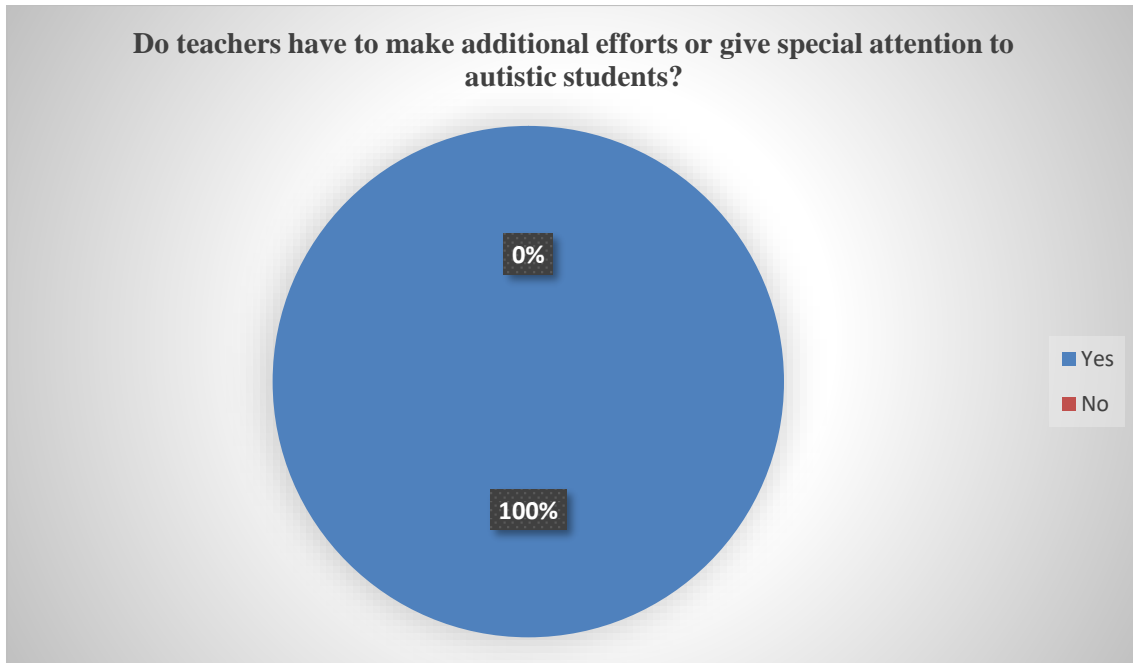
6.67 % of the participants agreed to the inclusion of autistic pupils in the classroom, while 93.33 % did not because of their aggressive behavior (chart5).

Figure 2.6 Dealing with an autistic pupil in the classroom



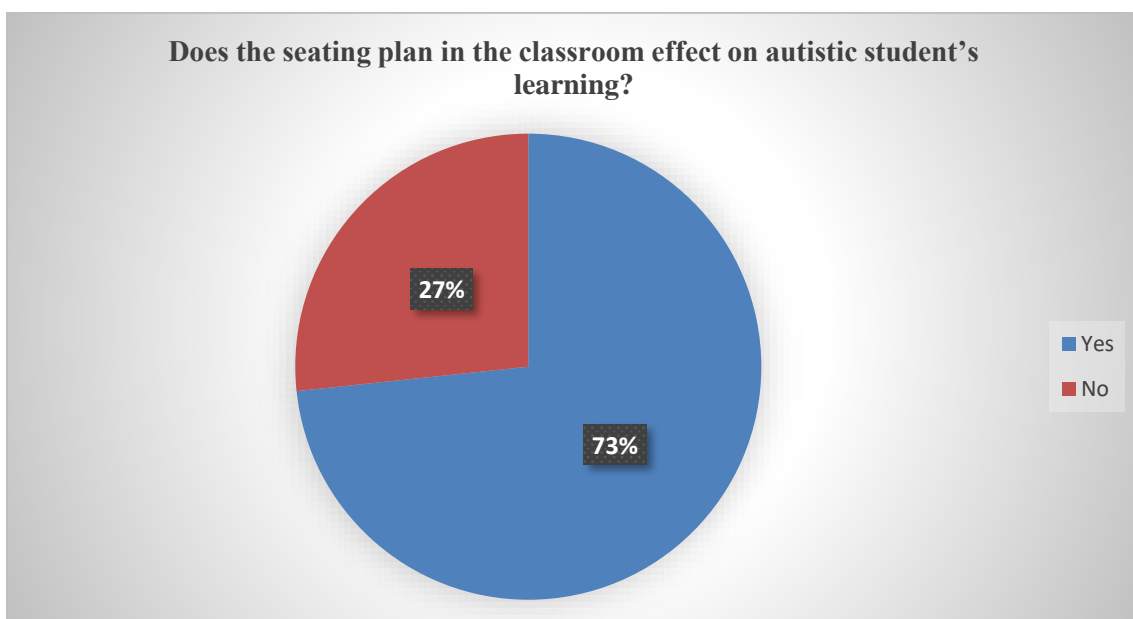
As presented in chart (6), 13.34 % of the teachers thought that autistic pupils should receive the same treatment as the others. Nevertheless, 86.66 % were against and suggested the following; specialized and professional treatment, suggestopedia method, providing special classrooms, awareness of treatment, and consideration of their special needs.

Figure 2.7 Teachers' efforts to include an autistic child in the classroom



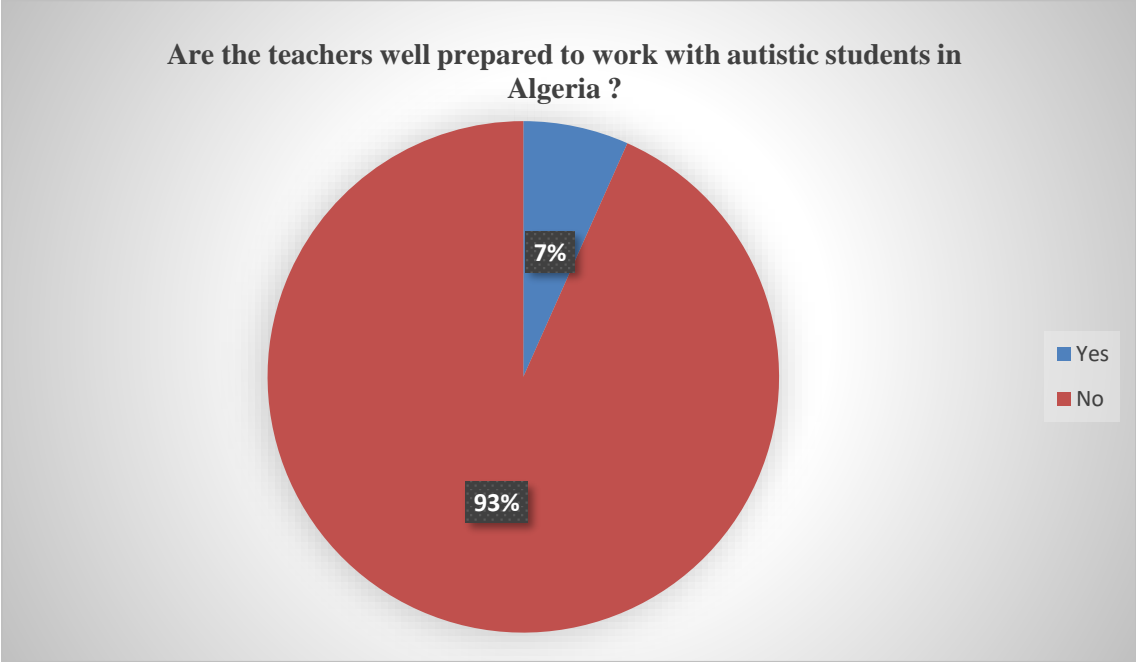
According to chart (7), 100% of the participants stated that teachers should make additional efforts with autistic pupils. They believed that it would affect others negatively by provoking jealousy, annulment, and hatred. But in other cases, it may affect positively by spreading awareness among the pupils.

Figure 2.8 The impact of the seating plan in the classroom on autistic student's learning



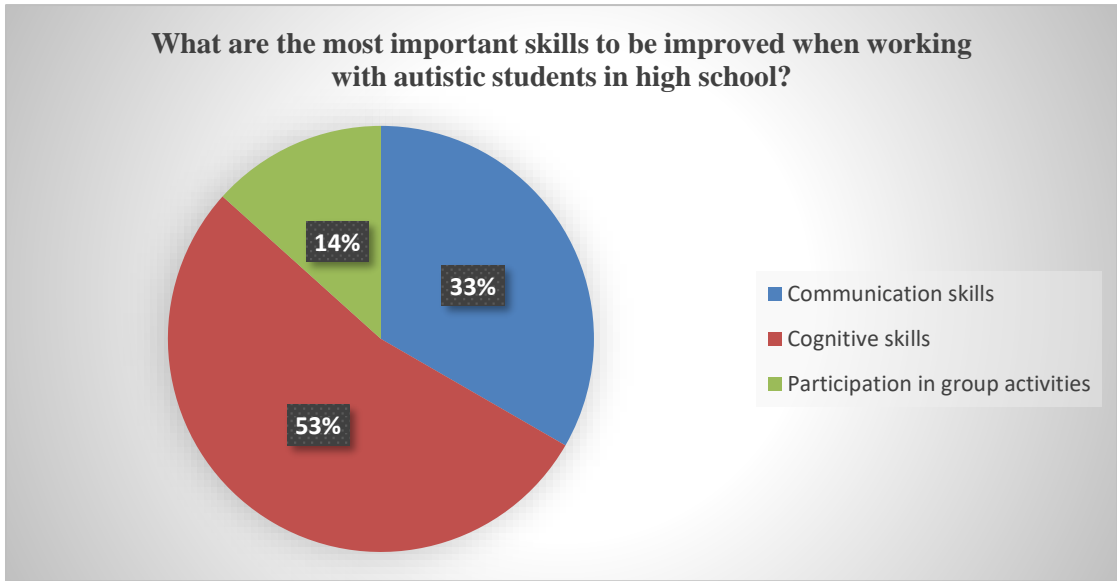
73.33% of the respondents thought that the seating plan affects autistic students' learning by increasing their concentration, communication, and engagement in the learning process. 26.67% did not consider the impact of the seating plan on this special group of pupils (chart 8).

Figure 2.9 The pedagogical formation of teachers in Algeria to work with an autistic child



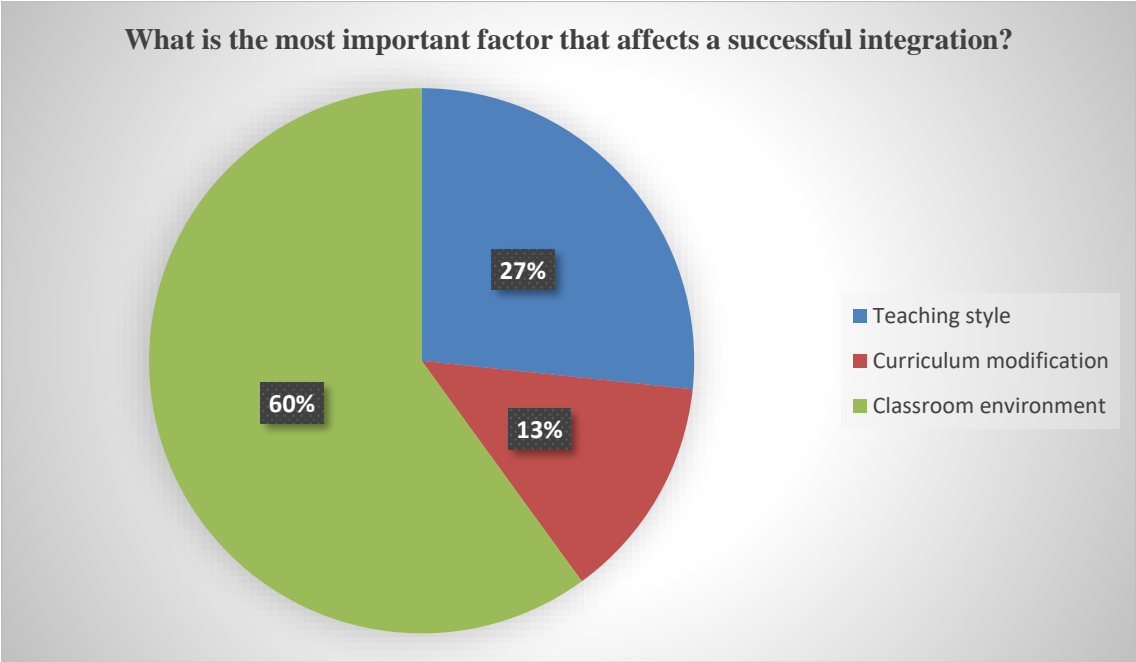
As presented in chart (9), 6.67% of the participants believed that Algerian teachers are well prepared to work with autistic pupils. However, 93.33% confirmed that those teachers are not trained enough; in fact, they need a new pedagogical formation to face and deal successfully with this category of pupils.

Figure 2.10: The skills to be improved when working with an autistic pupil



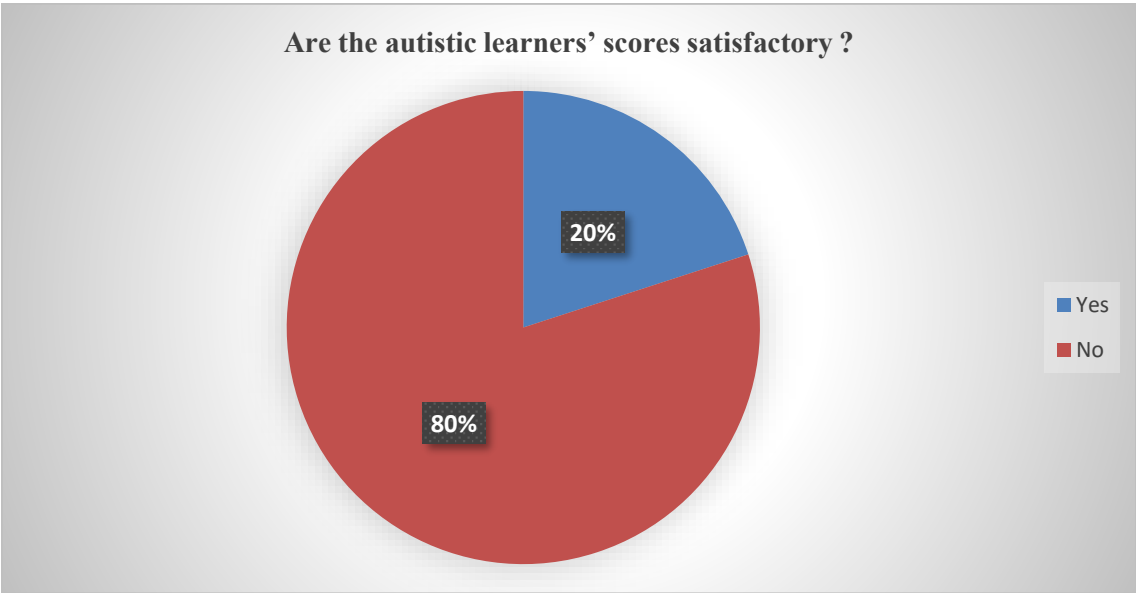
Cognitive skills are the most important skills for 53.33% of the participant. 33.33% of the teachers prefer to give communicative skills priority when teaching autistic pupils. The remaining 13.34% thought that participation in group activities is more significant within the learning process (Chart 10).

Figure 2.11: The most important factor that affects a successful integration



As presented in chart (11), 60% of the participants pointed out the importance of the classroom environment in the successful integration of autistic pupils. 26.67% considered the teaching style as the most important factor. 13.33% of teachers gave the curriculum modification the priority.

Figure 2.12: Autistic learner’s scores



4.4 Discussion

4.4.1 Discussion of the findings in relation to the literature review

As presented in the chart (11), 80% of the participants assumed that the autistic learners' scores are not satisfactory. However, 20% confirmed that their scores are satisfactory.

This study aimed to explore how teachers meet the needs and teach autistic learners in an inclusive class from the perspective of high school teachers. The main themes that emerged from the findings of the study will be discussed in this section.

Current research has illustrated that most teachers are not unfavore of the inclusion of autistic pupils in classrooms. The findings clearly show that learners with autism disorder need special treatment. They should not be included in the classroom in order not to interfere with the learning process because of their aggressive behaviors. Also, Lindsay et al. (2013) emphasize in the literature that the lack of time prevented teachers from providing adequate support to students with ASD and meeting the requirements for planning and fostering an inclusive classroom. Concerning this point, the findings of this study highlight an inadequate amount of time set to support autism in the classroom.

“Autistic students don't have the same cognitive abilities as their fellow comrades. Therefore, given the time available for each activity (45 minutes in my case) and the number of students in the classroom, it is extremely difficult to reach the objectives established in the first place. I think that they should be assigned to a special classroom where learning can be adapted to their level.” (Teacher B).

The results of this study also suggest that autistic pupils should receive special treatment from their teachers. Brenda Smith Myles (2005) acknowledges the importance of understanding the characteristics of autism and the knowledge of the strengths and needs of the individual student. The surveyed teachers referred to the significance of considering autistic pupils' needs. Besides, when it comes to the specific strategies employed in the classroom, a variety of strategies are used in the classrooms of the participants. One of the respondents suggested relying on the suggestopedia method.

“The best way to treat autistic students is by making them use their energy by giving them orders, like cleaning the board and writing the date, also by encouraging them when they do something. Another thing is using games and songs in the learning process (using suggestopedia method)” (Teacher E).

Consistent with several studies cited in the literature review, the findings of this study indicate that additional efforts should be made by teachers and special attention should be paid to autistic 31 pupils although it may create annoyance, jealousy, and hatred. Falvey, M

(2004), for example, claims that a key focus of efforts to achieve inclusive education must, therefore, be at the primary school level, and later in secondary-level schools. Another finding was that the seating plan affects the learning process of autistic pupils in terms of concentration, communication, and engagement.

Additional insights from the present study and those from previous literature suggest that Algerian teachers need a new pedagogical formation to successfully work with autistic pupils. Deon Filmer, (2008), as cited in the literature review, states that Teachers have to additionally get hold of training, consisting of insurance policies and strategies to promote the proper of individuals with disabilities to take part in the educational process at all levels, to enable them to adapt the educational surroundings to meet a range of mastering needs.

The findings in this study regarding the most important factor that affects the successful inclusion of autistic pupils place a great emphasis on the classroom environment. The findings that emerged from the questionnaire reveal that the most two important skills to be improved when teaching autistic pupils in high school are: cognitive skills and communicative skills.

4.5 Conclusion and recommendation

4.5.1 Summary of the Key Findings

Autism is a developmental disorder that is considered as one of the most serious disorders as it affects all the child's aspects. An autistic child reaches the most challenging years of his/her life when attending school. In fact; teachers play a significant role in the positive inclusion of ASD pupils. They experience conflicts as they cope with the social and emotional challenges these students have, and these conflicts may determine the quality of teacher-student relationships. The findings of this study, combined with relevant literature on the topic came up with many worth-considering recommendations as regards including an autistic child in secondary schools. Algerian teachers should benefit from further training on autism and inclusive education. Besides teachers need to fully understand how to educate students with ASD. They should expand their pedagogy by learning about innovative strategies to help further support students with disabilities, and how these methods can be adapted to suit the needs of students. Ultimately, additional efforts should be made by teachers and special attention should be paid to autistic pupils.

4.5.2 Limitations of the Study

- In Algeria, as well as in the Arab world, talking about autism is a taboo. Many Algerian families reject anyone from their community to know about their autistic children. Hence, they do not inform the school authorities about the condition of their

children.

- In Algeria, there are no special schools for autistic learners (neither private nor public), so the researchers were obliged to get in contact with teachers through social media platforms.
- Owing to hard circumstances that the whole world is going through (COVID-19), the researchers found it difficult to meet the teachers. So, they preferred to conduct a quantitative study based on a questionnaire (avoiding face to face discussions and interviews).
- Time constraints did not offer the researchers the opportunity to use support their work with a second data gathering tool.

4.5.3 Agenda for Future Research

It is hoped that this study will inform further research in this field in order to examine the extent to which the classroom environment and teaching style have an impact on the successful inclusion of autism in Algeria. Additionally, this humble research would pave the way for further investigations on the continuity of support for pupils with special educational needs.

4.5.4 Research Aims

The main objective of this piece of research was to find out how teachers meet the needs and teach autistic students in an inclusive class. The study also aimed to identify the challenges that both teachers and autistic learners face in the classroom and to explore the strategies that teachers use to successfully deal with students with autism in the classroom.

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أطفال التوحد في الجزائر

- (أطفال التوحد في الجزائر... معدمون وهم على قيد الحياة. الشروق مجراب, ز. 01 نوفمبر 2013 .)

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لحياني، ع. (4 أبريل 2017). (آلأطفال في الجزائر يعانون من "التوحد. العربي الجديد

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الذاعة الجزائرية. 2018 ارتفاع معدل الصابة بالتوحد في الجزائر والطباء ينصحون بالمسارعة في الكشف

<https://www.radioalgerie.dz/news/ar/reportage/156547.html>

Appendix

Questionnaire to Teachers

QUESTIONNAIRE FOR TEACHERS OF ENGLISH IN SECONDARY SCHOOL

Dear teachers,

We would be thankful if you answer the following questions. We are conducting an inquiry on the effects of inclusive education on autistic students. This study aims at exploring the challenges that are faced by teachers and, the strategies teachers they use to be successful with pupils with autism in the class.

Autism refers to neurologic problems involving serious impairment of capabilities to interact and communicate socially, and repetitive and confined interests and activities.

Inclusive education is an approach to schooling in which students with many different kinds of disabilities and learning needs are educated in classes with non-disabled and typically developing students.

15 questions require you to pick up the appropriate answer from several choices.

Thank you in advance.

1-What is your gender?

- Male
- Female

2- How long have you been teaching?

- From 1-5 years
- From 5-10 years
- From 10 years or more

3- Where do you teach?

- Private school
- public school

4- Have you taught an autistic student before?

- Yes
- No

5- Was the autistic student that you have already taught aggressive?

Yes

No

6-How is teaching with an autistic student?

Easy

average

difficult

no idea

7- In your opinion, should an autistic student be included in a classroom?

Yes

No

- Why?

.....

8- Do you think it is acceptable to include autistic students in classrooms regardless of their aggressive behavior?

Yes

No

9-Do you think autistic students should receive the same treatment as other classroom pupils?

Yes

No

-If the answer is no, then what is the best way to treat them?

.....

10- Do teachers have to make additional efforts or give special attention to autistic students?

Yes

No

-If the answer is yes, how would it affect the other students?

.....

11-Does the seating plan in the classroom effect on autistic student’s learning?

Yes

No

-How ?

.....

12- Are the teachers well prepared to work with autistic students in Algeria?

Yes

No

- If the answer is no, do you think that they need a new pedagogical formation?

.....

13- What are the most important skills to be improved when working with autistic students in high school?

Communication skills

Cognitive skills

Participation in group activities

14- what is the most important factor that affects a successful integration?

Teaching style

Curriculum modification

Classroom environment

Others

.....

15- Are the autistic learners’ scores satisfactory?

Yes

No