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Special Educational Needs : The Case of Autistic
Children in City of Tlemcen

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Statement of Originality

I hereby declare that this submission is my own work, and that it contains no material previously published or written by another person nor material which has been accepted for the qualification of any other degree or diploma of a university or other institution. I also certify that the present work contains no plagiarism and it is the result of my own investigation, except where otherwise stated.

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Signature:

Dedication

After a journey of study that carried within its folds both fatigue and joy, today I stand at the threshold of my graduation. I thank God for the opportunity of beginnings and reaching endings.

I dedicate my success to those whose name I proudly bear, to those who have strived their entire lives for us to be better than them, to those who supported me without bounds and gave me without asking, "my dear father".

To the one whom God has placed paradise beneath her feet, whose prayers were the secret to my success and whose affection was the balm to my wounds, my first teacher and friend of my days, "my tender-hearted mother".

To my support and backbone, to the one who was my pillar, to the one who immersed me in love and guidance, "my brother Abdelkader".

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Abstract

Autism spectrum disorder offered distinct obstacles that necessitate specialised ways to promoting learning and development for autistic students. This study aimed to explore the methods employed by specialists in identifying autism, as well as the challenges encountered by autistic children in their learning process. Additionally, it delved into the techniques utilized by psychologists and educators to address these challenges. Conducted as a case study in the city of Tlemcen during the academic year 2023-2024, the research involved a sample comprising two psychologists, two teachers, and six parents of autistic children. Qualitative data were gathered relying on two research instruments: structured interviews and non-participant observation. Key findings indicated that psychologists primarily rely on diagnostic tests to identify autism. Furthermore, the study highlighted significant obstacles faced by autistic students in their learning journey, prompting educators and psychologists to employ various techniques and strategies to support these students with special needs. Building on the findings, the researcher offers crucial suggestions to enhance the education of autistic students. These recommendations include implementing effective strategies for teachers, psychologists, and parents to optimize learning outcomes. Specifically, emphasizing the importance of collaborative efforts between specialists and parents, as well as advocating for specialized training programs to equip professionals with the necessary expertise in this field.

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List of Acronyms

AAT: Association of autism – Tlemcen

ABA: Applied behaviour analysis is a proven method used to improve or change specific behaviors in individuals diagnosed (ASD).

ADI-R: Autism Diagnostic Interview-Revised

ADOS: Autism Diagnostic Observation Schedule

ASD: Autism Spectrum Disorder

CARS: Childhood Autism Rating Scale

CDC: Centers for Disease Control and Prevention

DSM-III: Diagnostic and Statistical Manual of Mental Disorders

DTT: Discrete Trial Training

M-C HAT: Modified Checklist for Autism in Toddlers

PEP-3: Psychoeducational Profile-3

TEACCH: Treatment and Education of Autistic and Communication-Handicapped Children is a method Focuses on a structured form of visual learning .

General Introduction

General Introduction

Currently, supporting individuals with special needs presents a significant global challenge, as it necessitates a wide range of services to facilitate their integration into everyday life. Autism, in particular, remains a perplexing condition for many philosophers, psychologists and educators. Autism Spectrum Disorders are a group of neurological conditions that affect how individuals interact with the world around them and communicate with others. These conditions range from mild to severe and manifest in different ways in each child. Despite the challenges that children with autism may face, they possess unique abilities and talents that can be developed and utilized if given the appropriate support.

The education of children with autism is an increasingly significant issue within contemporary societies. Children diagnosed with Autism Spectrum Disorder (ASD) encounter distinct and multifaceted challenges pertaining to social communication, behavioural patterns, and cognitive development. Consequently, the provision of a supportive and inclusive educational framework, tailored to meet their specific needs, is essential for fostering their potential and facilitating their personal and social development.

Indeed, this study aims to investigate and elucidate the extent to which specialists address the needs of children with autism. Moreover, this research attempts to support to ongoing special education reform by establishing three specific objectives. First, it aims to examine methods for detecting autism. In addition, it tries to identify the challenges faced by autistic students in educational settings. Moreover, it seeks to evaluate the strategies employed by teachers and psychologists to mitigate these difficulties.

As a result, this research aims to address the following questions:

1. What methods do specialists employ to identify autism?
2. What are the challenges that face autistic children during learning?
3. What are the techniques used by psychologists and teachers to overcome these difficulties?

To provide insights into the issues addressed in this study, the following hypotheses have been formulated:

1/ Specialists can effectively detect autism spectrum disorder (ASD) through the use of the Modified Checklist for Autism in Toddlers (M-CHAT).

2/ Autistic children in the classroom face challenges related to peer adaptation, weak memory, and behavioural issues.

3/ ABA and TEACCH are methods utilized in the education of children diagnosed with autism.

This research adopts an exploratory descriptive case study of autistic children in Wilaya of Tlemcen. This investigation will gather qualitative data employing two primary research instruments: structured interviews with two psychologists, two teachers and six parents and non-participant observation in two associations and one primary school.

To address these research questions, the study is divided into two chapters. The first chapter deals with history of autism and its definitions. In additions, identify the causes of autism and its characteristics. Moreover, this work also discusses the effect of autism in the learning of autistic children. This research also clarifies the role of autism centres for preparing the autistic Children for schooling. Then, light is shed on strategies of teaching for ASD students.

The second chapter centres on the practical component, which forms the core of the investigation. It begins by defining and justifying the research methodology employed, followed by a description of the study's setting and sample population, as well as the research instruments utilized. Subsequently, the chapter proceeds to data analysis and discussion of the primary findings. Finally, recommendations are proposed for specialists in the field of autism to enhance the outcomes of this investigation.

Chapter One : Literature Review

1.1 Introduction

Teaching students with autism requires extra time and patience to help them be successful in their learning. It is crucial that educators employ the appropriate strategies and methods in accordance with their specific needs.

This chapter traces an overview about the autism spectrum disorder, exploring its historical origins with its definition. Besides, it discusses the causes and characteristics of this disorder. Later, it deals with the effect of autism on the learning of autistic children. Furthermore, it discusses the role of autism centres in preparing the child for schooling with the various strategies of teaching children with autism spectrum disorder.

1.2 History of Autism

Autism's origins can be traced to the early 20th century, when Swiss psychiatrist Eugen Bleuler (1911) first recognized it. He described some of the symptoms such as being withdrawn or aloof and oblivious to the surroundings) of patients with schizophrenia. The word autism comes from the Greek word “autos” referring to self, which may encapsulate the increased focus on oneself, often observed in children and adults with autism (Joshua & Rajesh, 2022). Bleuler attributed these symptoms to the patients' underlying psychological condition rather than considering them a distinct disorder (Zauderer, 2023).

The concept of autism as a diagnostic category was introduced by Austrian-American psychiatrist Leo Kanner in 1943. Kanner's paper titled "Autistic Disturbances of Affective Contact" quickly garnered attention. Within a year, he renamed the common condition observed among these children to 'early infantile autism,' which later became widely recognized as 'autism' or 'Kanner's syndrome.' His description of the disorder, drawn from his observations of 11 children treated at his clinic in Baltimore, Maryland, set the standard until the 1980s. It centered around three key features: Autism typically manifested early in childhood, involved challenges in communication and social interaction, and included repetitive behaviors alongside a preference for routine (Dobbs, 2022).

His report outlined the primary traits of the children. According to him, the children had an extreme aloneness tendency from an early age and desired to be left alone. Additionally, they were adamant about maintaining their habits and environment and became quite agitated when anything changes (Rodriguez, 2009).

Coincidentally, Austrian paediatrician Hans Asperger (1906-1980) published similar findings in early 1944, just months after Kanner's work. Both men were unaware of each other's research, yet both used the term "autistic" to describe their observations. Asperger's work concentrated on a group of children who looked to be preoccupied with train timetables, clocks, and other limited interests and who encountered trouble with social interaction such that they were labelled "odd" or "frankly unusual" (Stillman, 2007).

Researchers started concentrating more on the causes of autism in the 1960s and 1970s. Many ideas were put up during this period, one of which claimed that autism was brought on by inadequate parenting or an emotional disturbance in the child. But it was that scientists started to realize autism has a hereditary component. A study conducted in 1977 under the direction of Michael Rutter's group of researchers revealed a higher frequency of autism in families where the disorder has a history (Moller, 2023).

The diagnosis criteria for autism were improved, and the condition started to get more recognition in the 1980s and 1990s. In 1980, The American Psychiatric Association updated the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) to include autism. Around this same period, scientists started looking into how environmental variables can contribute to the development of autism. The concept that the MMR vaccine (measles, mumps, and rubella) was to blame for the rise in autism cases was one view that gained support. Numerous investigations have now refuted this notion, nevertheless (Moller, 2023).

The study of autism has expanded in the twenty-first century. According to estimates from the Centers for Disease Control and Prevention (CDC), 1 in 150 children in the United States was projected to have autism in 2007. That figure has increased to 1 in 54 as of today (Moller, 2023). The history of autism has been

written about by Verhoeff (2013), Solomon (2010), Silberman (2015), and Evans (2017) (Gaffiney, 2017). Even though the disorder was just discovered in the 20th century, it is possible that autism has always existed within the people in some capacity.

1.3 Definition of Autism

The autism spectrum disorder is still a mystery to some people, although many researchers and psychologists have defined it; various descriptions can be cited. According to Mughal et al. (2022), Autism spectrum disorders (ASD) are a fast-expanding category of disabilities. Their issues with social relationships and recurring patterns of behaviour, hobbies, or activities define them. ASD is a multifaceted neurological condition that leads to behavioural and psychological challenges in children. “Autism is a lifelong, developmental disability that affects how a person communicates with and relates to other people, and how they experience the world around them “. (National Autistic Society). Moreover, Kanner (1943) as cited in Papachrysanthaki (2022) said that, specifically, Kanner characterized autistic children as unable to form reciprocal interactions and relationships with those around them.

From the previous definitions, it can say that autism is a rapidly expanding disability, that people suffer from a combination of developmental difficulties and it affects problems in the communication with others, the behaviour and especially the psychology of children.

1.4 Causes of Autism

ASD is a neurological condition influenced by both environmental and genetic factors that affect brain development. The combination between them, may make a person more likely to meet the requirements for ASD. For example, exposure to harmful pollutants during pregnancy can lead to genetic mutations that may contribute to autism in the child. There are various factors of autism spectrum disorder.

1.4.1 Genetic Factors

Between 10 and 20 percent of people with autism diagnoses have anomalies in particular regions of their chromosomes or genes, which correlate to specific genetic illnesses like Rett syndrome or Fragile X syndrome. Siblings of twins with autism diagnoses also have a higher incidence of autism. Children with older parents are more likely to have autism, according to researches (Taschancha, 2023). Those who have autism are more accurately described as having a genetic susceptibility than as having a genetic condition. It is obvious that the surroundings are important. The majority of research findings on autism have gone toward the study of genetics, despite the fact that most researchers admit this in their studies. This seems to have been largely ignored, based on the path that autism research has taken over the previous twenty to thirty years. Up until recently, the general consensus supported the idea that autism is solely a genetic disorder that develops as a result of a mutation that happens extremely early in fetal development, meaning that the disease's trajectory cannot be changed (Brayon & Johnson, 2007).

1.4.2 Environmental Factors

Environmental factors include a variety of elements that may contribute to the development of autism spectrum disorder (ASD). Researchers have identified the following significant environmental elements as potential contributors:

1.4.2.1 Prenatal Factors

Exposure to certain chemicals or situations during pregnancy may raise the chance of autism. These include maternal illnesses during pregnancy, such as rubella or cytomegalovirus, as well as exposure to specific drugs (e.g., valproic acid) or toxins (e.g., pesticides, air pollution) (Herts –Picciotto et al., 2018).

1.4.2.2 Perinatal Factors

Birth complications such as low birth weight, early birth, or a lack of oxygen to the baby's brain (asphyxia) have been linked to a heightened risk of ASD (Gardener et al., 2009).

1.4.2.3 Parental Age

Advanced parental age, particularly among dads, has been associated to an increased probability of having a child with ASD. Older parents may be at a higher risk of genetic abnormalities that contribute to autism in their children (Sandin et al., 2016).

1.4.2.4 Exposure to Environmental Toxins

Certain environmental toxins or pollutants, including as heavy metals (e.g., lead, mercury) or air pollutants, have been identified as potential risk factors for autism spectrum disorder. However, the particular processes by which these chemicals may affect autism risk are still being investigated (Volk et al., 2013).

1.4.2.5 Nutritional Factors

According to certain studies, a mother's food and nutritional state during pregnancy may have an impact on her unborn child's chance of developing ASD. For instance, there is evidence linking deficiencies in specific nutrients, such as omega-3 fatty acids or folate, to a higher risk of autism (Schmidt et al., 2012).

1.4.2.6 Stress and Trauma

It has been suggested that perinatal and early-life stressors, such as mother stress during pregnancy or early childhood trauma, may play a part in the development of autism spectrum disorder. Persistent stressors have the potential to interfere with normal brain development and raise the risk of neurodevelopmental disorders such as autism (Van Den Bergh Marcoen, 2004).

1.5 Characteristics of Autism

The characteristics usually become apparent in autistic child after the child complete the second year of age, and it begins to occur less often the age of five. The characteristics or symptoms do not appear to the same degree and severity, as they differ from one child to another, and in general in autism the following

characteristics can be noted by Bataina et al. (2022) in which they suggest 7 characteristics:

1.5.1 Communication Difficulties

Problems related to communication among individuals with autism disorder are considered one of the important indicators that distinguish people with ASD, which is represented by the lack of development of speech completely and its replacement by gestures sometimes. The language develops abnormally and is limited to some stereotypical words, such as repeating some phrases, issuing incomprehensible or slurred speech, or repeating words heard previously in inappropriate time and place conditions. In general, the development of the language is slow, and may not develop at all, which makes them take different methods. Others as a means of communication, Words are used differently and may only be understood by people close to them. They also associate things with unusual words, so they use the word “ball” to indicate their desire to go to the club. They also have the phenomenon of confrontation, which appears in 75% of autistic children (Bataina et al., 2022).

Children with autism spectrum disorder's ability to communicate and use language is determined by their intellectual and social development. Some children with ASD may be unable to communicate through speech or language, while others may have poor speaking skills. Others may have extensive vocabulary and be able to discuss specific topics in great detail. Many people have difficulty understanding the meaning and rhythm of words and sentences. They may also be unable to comprehend body language and the significance of varied speech tones. These challenges, when combined, have an impact on children with ASD's ability to interact with others, particularly their peers (Kasari et al.,2013).

1.5.2 Social Characteristics

Children diagnosed by autism suffer from difficulties in initiating social relationships and maintain them with their peers, although they may relate better with their parents Caregivers and other people who can provide for their needs and read the most important problem are their feelings. Social contact difficulties are

key challenges for students with ASD. These issues emerge in a variety of ways, affecting their capacity to build and maintain meaningful connections (university of Kansas, 2023). Deficiencies in the social field appear in cases of autism spectrum disorder, and there is a wide range in which manifestations of deficiencies in the social field are evident at various stages of life, although they are more evident in the early stages of the child's life, as most children with autism disorder show a lack of interest in those around them and prefer loneliness. They rarely look for any social contact or to share their experiences with others.

One of the characteristics of autistic children is also withdrawal from social situations, and perhaps the reason is that they are unable to exchange feelings with others and explain them. Therefore, they find that he does not show any interest in the presence of others and never looks at them in their faces and does not smile at them. They also notice that autistic children fail to show normal relationships with their parents, and show a failure to show empathy and express feelings (Bataina et al., 2022).

1.5.3 Behavioural Characteristics

Children with autism at the age of two show abnormal behaviors and interests, characterized by repetitiveness, stereotyping, and specificity. This is considered one of the main indicators that may indicate the development of autism in them, as these children display behaviors and activities that take the character of commitment to a specific routine and ritual, appearing in the form of insistence. It is believed that the impairment of the executive functioning system in autistic individuals causes these repetitive behaviours. The ability to self-regulate behaviour is compromised in autistic individuals due to impairments in executive functioning (Murray, 2015).

They also clearly and clearly show stereotypical behaviors, such as staring at a car engine belt while it is rotating, for a long period of time without feeling tired or bored, or an autistic child may show a high preoccupation with the wheels of his toy, so he works to rotate them over and over again instead of interacting with them. Naturally, with the game, most of the behaviors of an autistic child seem limited

and simple, such as wrapping a piece of tissue paper in his hands or rotating a pen between his fingers. He also lacks innovative imaginative play and the ability to imitate, but severe emotional outbursts are common in his behaviour, and his behaviour is this in most cases. Sometimes the reason others stay away from him (Bataina et al., 2022).

1.5.4 Mental-cognitive Characteristics

Autistic children tend to have selective attention regarding events in the environment in which they live. They may not respond to a loud sound and respond intentionally to Light reflected on the wall. As for mental abilities, about 40% of autistic children have an IQ of less than 50-55%, and 30% have an IQ of 70% or more. This is due to several reasons, including that the performance of an autistic child is usually governed by the nature and situation of the test and the child's mood and not by the difficulty of the task required (Bataina et al.,2022).

1.5.5 Kinetic Characteristics

Some movements seem unusual in autistic children. They have a special way of standing, and when they move, many of them do not move their arms to their sides. They may repeat certain gestures over and over again. For example, they repeatedly hit the ground with their feet forward or backward when they are happy. Hyperactivity is common among people with this disorder, and the child shows a clear deficiency in his motivation towards the stimuli present in his surrounding environment. The child on the autistic spectrum Just as any individual becomes frustrated and angry as a result of not satisfying a specific need for him or fulfilling his desires, this causes him to engage in behaviour that causes harm to himself and others, and the goal of that behaviour is to alleviate the pain resulting from feelings of frustration (Bataina et al., 2022).

1.5.6 Physical Characteristics

The general appearance is often acceptable but they differ from a healthy

IQ : stands for intelligence quotations and it is a total score derived from a set of standardised tests or subtests designed to assess human intelligence.

child in terms of: Skin characteristics and fingerprints, indicating a defect in the growth of the skin layer covering the body. Individuals with autism frequently have

a variety of atypical physical traits, known as dysmorphologies, such as wide-set eyes or large foreheads (Wright, 2012).

Autistic children are exposed to respiratory diseases and conditions Asthma, allergies and coughs, and they differ in their response to diseases and may not increase the body temperature of the autistic child and he is not in pain despite his complaints of fever and pain. As they differ in their inability to use a particular hand, which indicates a functional disorder between the right and left hemispheres of the brain (Bataina et al., 2022).

1.5.7 Emotional Characteristics

While some young autistic children exhibit emotional behaviour similar to their peers who are typically developing, individuals with more severe symptoms may not communicate their emotions at all in situations where a neurotypical child might feel something (The Place for Children with Autism, 2021). Some children may feel afraid of harmless and non-scary things, such as the sound of a doorbell. Some children also do not have the ability to understand the feelings of the people around them. The child may laugh when someone falls in front of him, or he may be exposed to bouts of crying and screaming for a specific reason, as they suffer from constant mood swings (Bataina et al., 2022).

1.5.8 Possible Early Signs of Autism

Since the symptoms of infection appear gradually and not suddenly, there must be indicators of infection that can be noticed by the parents and those around the child during infancy and beyond, before the child reaches the third year. Specialists focus on an element (Bataina et al., 2022).

Consistency in the recurrence of these signs, which appear successively during the first three years of life Child's age. Many studies indicate that there are indicators that appear during the first six months from the age of the child, the mother can notice it. It is one of the indicators that appear during the first year from the age of the child. According to (Bataina et al., 2022), the following are indicators of autism disorder:

- Exaggeratedly calm even when left alone.
- Absence of social smiling (which begins at the age of two months).
- Absence of a smile of recognition, so the mother complains that he does not recognize her.
- He does not focus his gaze on the gaze of his interlocutor
- He does not cry when upset or angry
- He does not babble or produce verbal syllables until the age of 12 months.
- He does not show any interest in the toys or sounds that are placed in front of him
- He does not care when someone approaches him, and does not respond to anyone who tries to carry him.
- His muscles are flaccid, which is evident through doing muscle mapping.
- He cannot follow his mother and notice her with his sight.
- He does not tend to flirt and does not interact with others.
- He gets upset when hugged or touched with his body.
- As for the indicators that appear successively during the second year of the child's life and indicate the presence of the disorder in the child includes:
- He does not respond when calling or talking to him (he appears deaf).
- He seems to be alone, not paying attention to those around him.
- He does not utter a single word at the age of 16 months and appears to repeat like a parrot.
- Attachment to something is like being drawn to one game and paying attention to certain details in it not important as tires.
- He isolates himself from the group and plays alone.
- He misses imitation, symbolic and imaginative play, as he describes games in a row.
- The appearance of routine movements such as flapping his hands and turning around.
- Extremely resistant to change and temperamental.
- Sensitive to loud sounds and lights, wary of strangers.

1.6 The Effect of Autism in Learning of Autistic children

According to Yacoub (2023) there are 6 ways can autism affects the learning of ASD children:

1.6.1 Sensory Processing Differences

The term "sensory processing" describes how a person interprets and reacts to environmental sensory stimuli, such as audio or visual data. What effects does autism have on pupils in the classroom? Children with autism may exhibit the following variations in sensory processing, which may make it challenging for them to engage with others in a classroom:

- **Hypersensitivity:** an increased susceptibility to environmental cues that makes it harder to focus on academic tasks. Little noises, such as a light flickering, can easily divert a child in a classroom.
- **Hyposensitivity:** is the state of having less sensitivity or awareness to stimuli such as touch, noises, or bodily position (proprioception). The youngster may have trouble writing (they need more substantial touch to integrate sensory input) or they may not detect sounds like their teacher calling their name.
- **Sensory integration difficulties:** How the brain organises and interprets different kinds of sensory information from diverse sources. A youngster may become overwhelmed in a learning environment by multiple sources of information, including the sound of an instructor providing directions, their own body language and movements while writing, and the sight of a room full of toys and other children. The youngster may stop taking part in educational activities (Yakoub, 2023).
- **Sensory seeking:** Children that suffer from hyposensitivity tend to seek out sensory stimulation as a way to make up for their reduced awareness of external stimuli. This may have an effect on how well a child with autism learns since they may find it difficult to stay still in a chair and may prefer to wander around. That may affect how focused they are on academic teaching at school (Yakoub, 2023).

1.6.2 Executive Functioning Deficits

The collection of mental abilities required to finish activities is referred to as executive functioning. Deficits in this area can be seen in children with autism, and these can have a big influence on how they learn (Yakoub, 2023), in ways like:

- **Planning and Organisation Challenges:** having trouble starting a task. When faced with a more complex activity, such as answering a mathematics word problem, the child may find it difficult to plan how to divide it up into smaller, more manageable tasks.
- **Working memory impairment:** is the inability to remember a small amount of information long enough to be easily accessed. A child diagnosed with autism may struggle to apply and retain some concepts given to them, as well as to follow instructions that require multiple steps.
- **Decreased Attention:** Children with autism spectrum disorders may have trouble focusing, ignoring outside distractions, and sustaining their attention to certain activities.

1.6.3 Language and Communication Challenges

Children with autism often experience delays in language development, which can cause difficulties when they are learning. In school-aged youngsters, language proficiency is proven to be a powerful predictor of later academic achievement.

- **Delayed expressive language skills:** A child who has it may find it challenging to express their needs, goals, and ideas in a classroom setting. Delays in language might cause problems when it comes to naming letters, colours, and shapes—concepts that are appropriate for the child's age.
- **Delayed Receptive Language Skills (Comprehension):** The child may struggle to understand academic concepts, follow instructions, and comprehend information in stories.
- **Difficulty with the social use of language:** One of the hallmarks of autism that may affect a child's educational experience is this. A youngster with autism may find it challenging to participate in group academic work for a

variety of reasons. He or she could find it difficult to strike up or maintain a discussion with classmates. Furthermore, the youngster could struggle to interpret social cues that are given verbally or nonverbally. For instance, effectively reading nonverbal clues and body language to determine when someone is not interested in what they are saying. The child may experience social language challenges, which could lead to feelings of isolation and hinder their ability to engage with others in the classroom (Yakoub, 2023).

1.6.4 Cognitive Processing Differences

A lot of children with autism process information differently, and a lot of them have better visual processing abilities. The toddler could be able to finish a puzzle fast or rapidly memorise and repeat a pattern they see.

In some situations, this might be an advantage. On the other hand, when information is given orally or in writing (such as when instructions are given or concepts are taught), it may cause difficulties with information processing. An autistic youngster who struggles with abstract concepts may experience difficulties (Yakoub, 2023), with the following:

- **Understanding Figurative Language:** having trouble understanding metaphors, analogies, and figurative language.
- **Generalization:** Children with autism may find it challenging to apply knowledge or skills they have acquired in one setting to new ones. During a speech therapy session, the child might pick up skills like following multi-step instructions, but they might not employ these in a school setting (Yakoub, 2023).

1.6.5 Learning Style Preferences

Visual learning is typically strength for children diagnosed with autism. An autistic youngster could find it more difficult to understand an academic topic if it is delivered solely auditorily as opposed to when it is combined with a visual, such as a picture or diagram.

Certain children with autism seem to prefer regulated environments and benefit from routines that are predictable. When a classroom's procedures are

altered, problems could occur. When a youngster is given a new activity, such as a group scientific experiment instead of an individual one at their desk, they could find it difficult to adjust (Yakoub, 2023).

1.6.6 Restrictive and Repetitive Behaviors

One of the main characteristics of autism is the presence of restrictive and repetitive behaviours, or RRBs. This involves stimming behaviours (e.g., hand flapping, toy lining), as well as focused interests on a particular topic or object. A youngster with autism may become distracted by these behaviours and fail to pay attention to or learn the material being taught in an academic context. Strong interests may make it difficult for a child to adjust to learning new or unfamiliar content (Yakoub, 2023).

According to Ostmeyer and Scarpa (2012) there are 10 social skills are necessary for successful learning in classroom “listening to others, following steps, following rules, ignoring distractions, taking turns, asking for help, getting along with others, staying calm, taking responsibility for one’s own behaviour, and doing nice things for others” (p. 932).

1.7 The Role of Autism Centres for Preparing the Autistic Children for Schooling

Autism centres are dedicated to providing children with Autism Spectrum Disorder (ASD) with care, treatment, education, advocacy, and continuous support. They provide programmes to help children and their families deal with the particular difficulties brought on by ASD. These centres provide a welcoming environment with an emphasis on your child's development and discovering teaching strategies that suit them (Dream Big Children's Centre, 2024).

1.7.1 Teaches Valuable Life Skills

Life skills such as organising, personal care, cooking, basic housework, and interpersonal communication should be taught to everyone. Autism centres assist children with autism in understanding the value of these abilities and how to develop them. They give children’ practical learning opportunities that help them

learn self-care skills. To make the lessons more accessible and simpler to follow, these frequently take into account the child's home surroundings (Dream Big Children's Centre, 2024).

1.7.2 Helps with Social Skills

While they need special support, children on the spectrum want for friendship. They aren't always aware of acceptable behaviour or how to act in various social contexts. Behavioural interventions are used in autism centres to educate children how to socialise with other children. Children who learn how to engage with others are happier, participate in more community events, and feel more like they belong (Dream Big Children's Centre, 2024).

1.7.3 Provides the children with a sense of community

Individuals with autism spectrum disorders frequently experience social isolation. Children with autism can participate in social activities and form a feeling of community with the support of autism centres.

Learning in groups with skilled instructors gives children a sense of community. They need to be in an environment where they can interact with other autistic children and their families. A child is more willing to volunteer for events and interact with their peers when they feel included. Early socialisation prevents children with autism from feeling isolated. Additionally, it equips students with the skills they'll need to move into an adult community position as active members (Dream Big Children's Centre, 2024).

1.7.4 Improves Motor Functions

In order to complete a task, motor skills need moving a certain body component or muscle group. A crucial turning point in any child's development is their development. Children on the autism spectrum may find it more difficult to develop these skills. Autism centres assist by developing long-term and smaller-term goals for your child's motor skills. Learning to use a fork is an example of a simple aim to develop motor skills. Options for treating autism that concentrate on motor skills include occupational therapy, physical therapy, and **ABA** therapy (Dream Big Children's Centre, 2024).

1.7.5 Develops Independent

Children with autism can become more independent in their daily lives by learning behaviour management techniques and life skills in a variety of settings.

Early intervention enables children to acquire independence early on. When children grow up, they will be capable of taking care of themselves and not need their parents as much. Children on the autism spectrum can learn independently of their parents when they are in a new setting. This modification encourages greater autonomous problem-solving. They will learn to articulate themselves and explain their requirements to those who might not understand them as well (Dream Big Children's Centre, 2024).

1.7.6 Gives Parents Helpful Tools

Parents are children's most significant teachers because of the active role they take in their lives. Autism centres provide parents with useful tools to handle life at home, in addition to helping children develop important life skills.

Parents are encouraged to remain involved in their child's therapy by autism centres. They discover how to build on their child's advantages in order to reward good behaviour. These abilities enhance your child's home life and help you establish more fruitful daily routines. For additional advice on raising autistic children at home, see our comprehensive parenting guide (Dream Big Children's Centre, 2024).

1.7.7 Increases Confidence

Autism treatments are tailored to meet the requirements of your child. They can learn in a way that suits them best by concentrating on their unique skills.

Children with autism feel less overwhelmed and more capable while learning in an environment tailored to their unique learning style. They consequently get greater self-assurance in their skills. Their strong self-image and ability to find their voice are enhanced by the new skills they acquire throughout autism therapy. They will be more eager to attempt new things, comfortable in strange circumstances, and proactive in applying useful coping techniques once they are aware that they can succeed in learning and forming friendships (Dream Big Children's Centre, 2024).

1.8 Strategies of Teaching for ASD Students

With the rising number of children diagnosed with Autism Spectrum Disorder (ASD), our educational system faces increasing challenges in meeting their specific needs. General classroom teachers are becoming aware of effective teaching practices.

1.8.1 Support Routines and Transition

Most children with autism are sensitive to abrupt changes in routine and learn best in routine settings. As a result, when teaching autistic children, it is best to stick to a consistent pattern. This guarantees that each child understands what will happen next, allowing them to anticipate and plan accordingly. If a change in schedule or routine is required, advance notice is preferred. For example, suppose a youngster has an appointment during a time that is generally reserved for solo study in the classroom. To better prepare the child and encourage learning, a visual schedule might be created and presented to the youngster, highlighting any changes in routine (Brogen, 2019).

To further support this, a social story could help the child prepare even more. A social tale is a story that describes what will happen in a specific setting and what the social expectations are. If an unexpected change in routine occurs with little to no advance warning, be prepared to provide additional support to any youngster who may become dysregulated. Setting aside some alone or quiet time, for example, or allowing them to use their sensory tools can help them cope with unexpected changes. Transitions in the daily schedule might be challenging for some autistic youngsters to manage on their own. For example, if there is free playtime in the classroom followed by circle time, a child with autism may experience difficulty. A visible timer and advanced warning should be utilised to help students study more effectively. Some children may require transition objects, such as a plush toy or a sensory tool, to help them shift their mindset from one task to the next (Brogen, 2019).

1.8.2 Use Visual Cues

The majority of children with autism are visual learners, which means they learn best when information is presented visually rather than vocally or in another way. Visual clues can assist children with autism acquire and retain skills, as well as communicate more effectively. A visual cue could be a picture, a sketch, a list, keywords... According to (Brogen, 2019) there are some particular strategies to employ visual signals with autistic children.

First-Then Cues: children with autism frequently struggle to focus or participate in activities they do not enjoy. These are referred to as non-preferred activities. To stimulate and improve learning opportunities, a first-then cue might be used. This cue will include a visual of the task that must be done before proceeding to a more desirable pastime. For example, a cue could be: First (image of writing) Then (picture of a chosen game). This sort of cueing assists youngsters with autism in following directions and learning new abilities.

A visual schedule for tasks or routines: a graphic schedule can be used to break down individual aspects of an activity or to emphasise a routine for children with autism. Children with ASD often fail to follow multi-step instructions; therefore, a visual plan might be useful when teaching new abilities. For example, if a child is learning how to make a sandwich, a visual timetable could contain particular steps such as gathering materials, putting ingredients on the sandwich, and eating the sandwich. Depending on the child's needs, this visual calendar could be highly exact, including every step of arranging the components, or it could be larger, showing the general stages.

1.8.3 Introduce New Experiences Gradually

Parents and educators can use this chance to research and select experiences that are appropriate for the child's interests and requirements. This could include organising trips to locations like playgrounds, museums, or swimming lessons, which provide both educational and enjoyable benefits. These new environments should be introduced gradually, enabling the youngster to adjust at their own rate. Being aware of the autistic child's cues allows parents and educators to leave any

circumstance if the child exhibits signs of discomfort or distress, creating a good and supportive learning environment (Ransom, 2024).

1.8.4 Positive Reinforcement

Positive reinforcement is a component of Applied Behaviour Analysis (ABA) therapy. ABA, is a type of treatment that assists children with ASD in managing or eliminating harmful behaviours, such as behaviors that lead to self-injury or disturb other children. It is the most prevalent way for treating autistic children, and it helps them learn and behave more effectively. It works by providing rewards and incentives to encourage positive behaviour while discouraging negative behaviour. Positive reinforcement is defined as everything that occurs after a behaviour that motivates the youngster to repeat it. It is vital because it allows children with ASD to learn new things and develop their skills. A reward or activity is only considered positive reinforcement if it improves the behaviour (Liau, 2023)

1.8.5 Social Workshops & Social Skills Sessions

Social workshops teach children how to socialise with classmates on the playground or during school recess, for example, and how to engage more effectively in group situations. In addition, these sessions provide autistic individuals with opportunities to role-play and practice newly learnt skills before attempting them in social situations (as long as they receive some kind of reinforcement, like a favourite pastime, upon successfully completing the task) (8 Strategies and Methods for Teaching Autistic Children: Best Practices, 2021).

All autism teaching strategies require patience and understanding. Patience is important for the teachers as well parents of autistic students. By applying these strategies, the teacher, will success in his mission.

1.9 Conclusion

In this theoretical chapter, the researcher delved into the historical background of autism spectrum disorder (ASD) and provided various definitions elucidating its causes and characteristics. Expanding upon this, the chapter explored the impact of ASD on the learning trajectory of children with autism, as well as the

pivotal role played by organizations in facilitating their integration into educational settings. Furthermore, the chapter discussed pedagogical strategies tailored to the unique needs of autistic students.

The subsequent chapter will transition into a delineation of the research methodology employed, detailing the study's setting and the demographic characteristics of the sample population. It will proceed with an examination of the data collection techniques which are interviews and observation, accompanied by a discussion on the principal findings gleaned from the amassed data. Lastly, the chapter will culminate with a series of recommendations derived from the study's outcomes.

Chapter Two :
Data Analysis and Research Results

2.1 Introduction

The primary purpose of this chapter is to investigate the field of autism spectrum disorder (ASD). It seeks to collect data on how specialists detect autism, the challenges encountered by psychologists and teachers in teaching children with ASD, and the methods used in their education.

The chapter includes a description of the research methodology and tools, the study's setting and sample population. Additionally, it involves the analysis and discussion of the main findings. Finally, the researcher proposes recommendations based on the study's conclusions.

2.2 Research Methodology

Before, talking about the method used in this dissertation. First, there are some definitions about the term “research” according to different scholars:

According to Grinnell (1993, as cited in Raza, 2015) “Research is composed of two syllable-word Re and Search that describe careful, systematic, patient study, investigation for facts or principles “. Another scholar who is Kothari (2006, as cited in T, 2020) defines research “[i]s a pursuit of trust with the help of study, observation, comparison and experiment, the search for knowledge through objective and systematic method of finding solutions to a problem”. Both scholars insisted on the word systematic which means the research should be done with an organized and planned method.

The case study is one the essential methods. According to Yin (1994), a case study is “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident and relies on multiple sources of evidence” (p.13). This method has many advantages, Anthony (2023) suggests some of them:

- It Offers a Detailed Examination of a Particular Unit
- Case Study Method is Useful When Creating a Hypothesis
- It Gives an Expansion of Knowledge via analysis

-Case Study Method Provide Constant Examination of Facts

This present study is a case of autistic children in city of Tlemcen during the academic year 2023-2024. It used exploratory descriptive case study. According to Aggarwal (2024) exploratory research is designed to uncover new insights and develop initial hypotheses in areas that are not well understood. It lays the groundwork for more structured and detailed research by exploring new territories. In contrast, descriptive research methodically examines and characterizes specific phenomena or relationships. The investigator used exploratory descriptive case study because it offers a detailed and comprehensive description of the subject based on pre-established variables and questions in which the researcher addressed two psychologists and two teachers and 6 parents in order to know the ways to detect autism, moreover to identify the challenges that face autistic students during learning and the techniques used by teachers and psychologists to reduce these difficulties.

2.3 The setting of the study

The researcher wanted to conduct the study in settings in Tlemcen: the association of autism – Tlemcen (AAT), the association of autism – Tlemcen (AAT) and Khalil Abd Essalam primary school.

The investigator visited The association of autism besmat al-amal with an authorization signed by the head of department Prof. "Farid Daoudi (appendix A). It is situated in in Remchi-Tlemcen. The association was established on 31 of October 2016 at the cultural center of Remchi . It consists of 4 workers and 17 autistic children, with both genders and different ages.

| Psychologists | Speech therapists |
|----------------------|--------------------------|
| 04 | 01 |

Table 2. 1 Pedagogical employees at the association of Remchi

The head of department wrote a demand in Arabic in which he explained the mission of the researcher (Appendix B) to visit the second setting which was The the association of autism – Tlemcen (AAT). It was established on 2010 by the

members of the association which are psychologists and parents of autistic children. From 2010 to 2012 they were

searching for a place for the establishment of the association until 2012 a person has offered a space in Mansourah to take care of autistic children. It consists from 36 employees and 83 children.

| Psychologists | Educators | Specialists in sensory motor psychology |
|----------------------|------------------|--|
| 30 | 03 | 03 |

Table 2. 2 Pedagogical employees at the association of Tlemcen

Also, the researcher went to Khalil Abd Essalam primary school which is situated in Tlemcen. This school have two classes especially for autistic students, including 5 teachers and 15 pupils in each class.

2.4 The Sample Population

A sample is a subset of data that is chosen or selected by a researcher using a predetermined selection bias method from a wider population (Fleetwood, 2023). The purpose of sampling is to approximate the traits that are relevant to the research issue from a bigger population.

In this study, two psychologists, two teachers and 6 parents of autistic children were selected according to their-availability to be the subject of this study. All the participants were women. The psychologist at AABA has a master degree in educational psychology and at the same time she is a psychologist at a hospital with an experience of 6 years. The other psychologist at AAT is a professor of psychology in a university with more 10 years of experience. For the two teachers, they are both working in the same school with a master degree in educational psychology with an experience of 3 years. The purpose was to draw a comparison between the psychologists working in the associations and the teachers working in schools, to see if they employ the same techniques and strategies with children affected by ASD. For the parents, the researcher has chosen 3 parents from AABA, 2 from AAT and 3 from Khalil Abd Essalam school with different ages.

2.5 Research Tools Description

The investigator used two research instruments which are interview and observation.

2.5.1 Interview

An interview is a qualitative research method that involves asking questions in order to gather information. Interviews often involve two or more people, one of whom is the interviewer who asks the questions (George, 2023).

There are three types of interviews: structured, semi-structured and instructed. The first type involves the researcher asking participants a set of predetermined questions in a specified order. The second type, provide a flexible methodological framework by integrating present questions in which the researcher will possess a general understanding of the questions to be asked; however, the exact phrasing and sequence of the questions will not be determined. The third type, is not based on prepared questions in which the researcher can ask any questions they choose based on the respondents' responses.

This study used structured interviews with two psychologists (AppendixC), two teachers (Appendix D) and six parents of autistic children (Appendix E). All the participants answered the prepared questions in the same order. The interviews was concerned with their experiences in dealing with the children affected by ASD. The psychologist's interview included 15 questions, the teacher's interview included 6 questions and the parent's interview included 6 questions.

The psychologist's interview can be described according to the aim of the questions as follows:

Questions 1, 2, 3: These questions aim to gather general information about the association, including its history, the number of children served by the association and to the identify the types of professionals involved in the association.

Question4: To understand the potential impact of the student-to-teacher ratio on the quality of education and individual attention each child receives.

Question 5, 6: Both questions aim to shed light on the dynamics and difficulties in the relationship and cooperation between the association, the children, and their parents.

Questions 7, 8: These questions aim to learn about diagnostic and educational strategies used by the association.

Question 9: To explore the techniques and interventions used to encourage participation and overcome resistance to learning among autistic children.

Question 10: To determine if additional activities are provided to support the holistic development of children beyond the core educational curriculum.

Question 11: This question uniquely compares developmental progress between different stages of enrolment.

Question 12, 13, 14, 15: the common aim between these questions is to understand the transition of children from the association to mainstream or special schools, including the criteria for selection, collaboration with schools, and follow-up processes to ensure the continued progress and support of the children.

The teacher's interview can be described according to the aim of the questions as follows:

Question 1, 2: Both aim to evaluate the overall success and challenges of integrating children from the association into mainstream educational settings.

Question 3, 4: Both focus on the teaching methods and the challenges faced by educators in facilitating the learning process for autistic students.

Question 5, 6: Both aim to assess the support systems in place for autistic children, including the availability of specialized professionals and ongoing communication with the association.

The parent's interview can be described according to the aim of the questions as follows:

Question 1, 2: Both questions aim to explore the parents' initial experiences and reactions to their child's autism diagnosis.

Question 3: To learn about the strategies and methods parents use to manage their child's behavioural challenges.

Question 4: To examine the nature and extent of parental involvement and cooperation with teachers in supporting their child's education.

Question 5: To understand the channels through which parents learned about the association and the process they followed to connect with it.

Questions 6: This question was directed to 2 parents of autistic children who had integrated in schools. Its aim is to compare the developmental progress and changes in behaviour observed by parents since their child started attending a specific school

2.5.2 Observation

Kumar (2010) defines observation as “a purposeful, systematic and selective way of watching and listening to an interaction or phenomenon as it takes place” (p. 140). It allows for the monitoring and assessment of a process or situation, capturing evidence based on what is observed and heard.

Observation comes in two forms: participant observation and non-participant observation. Participant observation involves the observer actively joining and becoming part of the group being studied. In contrast, non-participant observation entails the observer staying outside the group and merely observing their behaviors from a distance.

In this study, observation was employed to corroborate and validate the information obtained from participant interviews. The investigator has conducted observation as non-participant observer documenting behaviors and interactions by the using of diary method which is a research method used to gather qualitative data by having participants document their daily activities and experiences in a log, diary, or journal. This approach captures detailed insights into the subject being studied through the participants' personal recordings (*Diary Studies*, 2024).

| Interview | Observation |
|--|---|
| Interview with psychologist 17/12/2023 | First session of observation 19/12/2023 |
| Interview with parents 18/12/2023 | Second session of observation 20/12/2023 |
| | Third session of observation 21/12/2023 |

Table 2. 3 AABA schedule

| Interview | Observation |
|--|---|
| Interview with psychologist 25/02/2024 | First session of observation 27/12/2023 |
| Interview with parents 26/02/2024 | Second session of observation 28/02/2024 |
| | Third session of observation 29/02/2024 |

Table 2. 4 AAT schedule

| Interview | Observation |
|------------------------------------|-------------------------------------|
| Interview with teachers 03/03/2024 | Observation in the class 04/03/2024 |
| Interview with parents 03/03/2024 | |

Table 2.5. Khalil Abd Essalam primary school

2.6 Data Analysis

In the current research, primary data collected through interview and observation has been qualitatively analysed to gain an in-depth understanding of the experiences of psychologists, teachers and parents dealing with autistic children.

2.6.1 Interview Analysis

2.6.1.1 Psychologist's Interview Analysis:

Question1: When the association established?

The psychologist who works in the association of autism besmat al-amal-Remchi answered it was established in 13 of October 2016, the other who works in the association of autism – Tlemcen answered in in 2010.

Question2: How many children was taken in charge from the starting of the association?

One of the interviewees said 40 children and the other interviewee stated that around 100 children were involved in the association.

Question3: Who are the professionals working with you?

The woman working at the association in Remchi indicated that their team consists of 3 psychologists and 1 speech therapist. Conversely, the woman working at the association in Tlemcen mentioned a larger team comprising 3 educators, 30 psychologists, and 3 specialists in sensory motor psychology.

Question4: Does a large number of children affect their learning?

The both participants, stated that their learning was not adversely affected due to the structured group arrangements. In the Association of Remchi, children are organized into two groups, one in the morning and one in the afternoon, with each group consisting of 5 to 7 children. The association of Tlemcen the Association of Tlemcen employs a structured approach by dividing children into three groups based on age. Each of these age-based groups is further subdivided into three smaller groups of three children each, categorized by the severity of their disorder—mild, moderate, or severe.

Question5: Do you collaborate with their parents and how?

Both interviewees confirmed the implementation of individualized educational programs through correspondence books, which contain detailed educational plans tailored to each child's level. These books are systematically

divided into various developmental areas, with specialists documenting notes on each child's strengths and weaknesses within those specific fields. Additionally, they utilize Viber groups to enhance communication, where specialists share weekly photos of activities conducted with the children. The second interviewee added that the association of Tlemcen has an additional initiative where they invite parents to attend classes every two months. This practice allows parents to observe the teaching methods and strategies employed by the specialists. Both participants highlighted the critical role of parental cooperation, emphasizing that parents should replicate the activities at home to achieve better results and progress in their child's development.

Question6: What are the primary challenges you encounter with individuals on the autism spectrum disorder and their parents?

Both informants reported encountering significant challenges with the children, particularly during episodes of anger where children may exhibit destructive behaviors, such as hitting, breaking objects, and sometimes injuring themselves or their classmates. Additionally, they noted frequent occurrences of uncontrollable laughter and intense crying. The children also face difficulties in adapting to their peers and display weak memory retention, necessitating the continuous repetition of lessons by specialists on a daily basis. Regarding the parents, some exhibit resistance to accepting their child's diagnosis of autism spectrum disorder. Furthermore, these parents often fail to adhere to the specialists' instructions, do not respect designated study times, and frequently display impatience, desiring quick results.

Question7: What methods do you use to detect autistic children? Do you have specific assessments tools or criteria?

One participant indicated that autism spectrum disorder (ASD) can be diagnosed starting from the age of three using the Modified Checklist for Autism in Toddlers (M-CHAT) and the Childhood Autism Rating Scale (CARS) to assess the severity of autism. The diagnostic process typically spans from three to six months. The other participant highlighted that there are predictive tools utilized before a

formal diagnosis, applicable from 18 months to three years of age. These tools identify early signs of autism, including difficulties with visual consistency, lack of social smiling, lack of imitation, absence of communication signals, lack of joint attention, disinterest in other children, repetitive unusual movements, and limited vocal production. However, these indicators alone do not provide a definitive diagnosis of autism. This participant also mentioned the combined use of the M-CHAT and other comprehensive assessment tools, such as the Autism Diagnostic Observation Schedule (ADOS) and the Autism Diagnostic Interview-Revised (ADI-R). These tools are widely recognized and employed globally to detect ASD.

Question8: What are the teaching strategies do you employ for autistic children?

Both participants concurred on the effectiveness of specific strategies for addressing autism, particularly the use of Applied Behaviour Analysis (ABA) and the TEACCH (Treatment and Education of Autistic and Communication-Handicapped Children) approach. ABA focuses on modifying negative behaviors by analysing each behaviour individually, such as screaming or crying, and attempting to alter these behaviors through positive reinforcement. This reinforcement can include rewards such as gifts or verbal encouragement, exemplified by telling a child that completing an activity will be followed by a break. Additionally, the TEACCH method is an educational program designed to enhance the independence of children with autism. It achieves this by structuring the environment and time to facilitate the child's assimilation through visual aids. This might involve using colours to organize materials or employing pictures to help the child learn new terms.

Question9: How do you handle situations when a child is reluctant to engage in the learning activities?

The first interviewee mentioned utilizing physical activity, such as sports accompanied by music, to manage tantrums or anger outbursts in autistic children, which helps to release their excess energy. This approach aims to redirect and calm the child during episodes of emotional distress. The second interviewee highlighted

the challenges of managing severe behaviors in autistic children. When behavioural interventions do not effectively reduce or stop the behaviour, medical intervention is considered, involving the administration of medication to mitigate the behaviour. In cases of severe behaviour, the child may be isolated from other children and placed under the supervision of a dedicated psychologist to address their specific needs. This isolation is intended to provide a structured and supportive environment for the child while managing their behaviour.

Question10: Are there any extracurricular activities offered outside the association?

One participant indicated that autistic children are taken to a swimming pool weekly as part of their therapeutic activities. The other participant reported that before the COVID-19 pandemic, regular sports activities such as tennis and swimming were incorporated into the program for autistic children. Currently, there are considerations to reintroduce these activities into the program.

Question11: What are the differences between children who have recently enrolled (pre-study) and those who have been studying for a long period (poste-study), in terms of their progress and development?

Both interviewees noted changes in cognitive and linguistic behaviors among children attending the association. They observed that newly enrolled children may not understand simple instructions such as saying "Bismillah" before eating or handing over an object when requested, whereas children who have been at the association for an extended period become accustomed to these routines and comprehend instructions more readily. Furthermore, in terms of academic skills, there is a disparity observed between children who are more established in the association and new arrivals. Some children at the association demonstrate proficiency in writing, recognizing letters, numbers, and shapes, whereas new children may lack these skills entirely.

Question12: Are these children able to transition to mainstream schools after completing their studies at your association?

Both participants affirmed that the associations aim to facilitate the development of these skills, emphasizing the need for licensed educators with degrees in educational psychology. These educators play a crucial role in supporting the child, simplifying the educational curriculum, and helping to manage behavioural challenges effectively

Question13: For those who are selected to carry on within schools, there are any specific criteria?

One interviewee outlined five criteria that a child must meet, including good behaviour like: ability to follow instructions, visual communication for example: responding to their name, understanding of questions, independence in activities like eating and dressing, language and communication skills such as: expressing thoughts and forming sentences). The other interviewee described the end-of-year evaluation process, where children are assessed for academic skills such as writing, graphics, letter and number recognition, shape identification, and colouring abilities. Children who demonstrate these skills and do not have significant behavioural disorders are considered eligible for enrolment in mainstream schools.

Question14: Do you select special schools to work with you? How?

Both participants indicated affirmative responses, achieved through communication with psychologists and school principals.

Question15: Is there a follow-up process for children after they enrol in schools?

Both interviewees affirmed that there is regular follow-up with the children's teachers. If behavioural issues arise, the children are brought back for further intervention and support.

2.6.1.2 Teacher's Interview Analysis:

Question1: What is your perspective on the integration process of children from the association? Do they seamlessly assimilate into the system, or do they require additional time for integration and adaptation?

The first teacher indicated variability in the readiness of children to integrate into school, noting that prior to admission, a psychoeducational profile assessment, such as the Psychoeducational Profile-3 (PEP-3), is conducted to evaluate the child's linguistic and cognitive abilities. The second teacher emphasized that children, particularly those with severe autism, require sufficient time and support to integrate effectively into the school environment.

Question2: Have these children demonstrated success in their studies within the educational system?

Both participants reported positive outcomes and improvements in the educational progress of the children. Some students have successfully transitioned into regular classes as a result.

Question3: What are the teaching strategies do you employ to facilitate the learning process for the autistic students?

Both participants indicated that their educational program follows an annual structure similar to that of typically developing children. However, they highlighted differences in methodology and resources, which require additional time. These resources include visual aids such as pictures and posters, as well as educational games like finger-strengthening activities such as gluing lentils to paper, writing letters and numbers in sand, and creating shapes with dough. One participant provided an example of their instructional approach in mathematics, where direct mental calculations are not immediately introduced. Instead, the teacher uses practical activities, such as placing balls into baskets according to given instructions for example: putting 5 balls in one basket and 3 balls in another. Through this exercise, the student gradually learns mathematical concepts. Furthermore, both

participants emphasized the importance of continuous motivation to enhance the students' self-confidence.

Question4: What are the challenges do you encounter while teaching these children?

One interviewee highlighted that these children experience behavioural disorders, which adversely affect their academic performance. Another interviewee noted that many of these children struggle with fine motor skills related to writing, including improper pen grip and poor handwriting. Additionally, some of these children face difficulties in social adaptation with their peers. Furthermore, inconsistent parental engagement in at-home exercises hampers the academic progress of these children.

Question5: Are specialized assistance professionals available to support these children during their lessons?

Both interviewees identified as professionals just psychologists and educators.

1. Question6: Do you maintain ongoing communication with the association for assistance or continued monitoring?

Both participants responded affirmatively, stating that if a child continues to exhibit tantrums, they are returned to the association.

2.6.1.3 Parent's Interview Analysis

Question1: How did you first realize that your child might be autistic?

The majority (5) of informants answered by: he did not look at me when I call his name, he made weird movements with his hands, he did not play with other children. One informant said that his child could not walk.

Question2: Initially, did you struggle to accept your child's autism diagnosis?

Most (4) of the participants accepted their child's autism diagnosis. Two other participants did not accept the idea that their children are autistic even after years.

Question3: How do you handle situations when your child experiences unexplained tantrums of crying or anger?

Three interviewees answered that they read the Qur'an to them until they calm down. The 3 other interviewees said that they hug and kiss them in order to relieve their tantrums.

Question4: How do you typically collaborate with the teachers regarding your child's education? How did you hear about the association? And how you get in touch with them?

All the participants (6) answered the same answer which is they heard and get in touch with the association through a psychologist.

Question5: How did you hear about the association? And how you get in touch with them?

The majority (5) of informants answered they collaborate with them by repeating exercises and helping them in their homework. One informant said she does not have time to work with her child because she works all the day from 8am to 8pm.

Question6: What differences have you observed in your child since he began studying at the school?

Both participants said that their children started talking, became more socialable, studying better.

2.6.2 Observation Analysis

2.6.2.1 AABA Observation Analysis

First session:

At 8 a.m., the researcher arrived at the association and immediately observed the presence of eight children. Some of the children were seated, while

others were moving around the classroom. The arrival of the psychologists prompted the children to return to their seats. Each psychologist then paired up with two children to review previously learned material. Notably, some children avoided eye contact with the psychologists, two children were non-verbal, and one child exhibited hyperactivity, unable to remain seated and disturbing peers. To address this excessive activity, the psychologist assigned this child to run on a treadmill for an hour as a form of discipline.

During the revision session, it was observed that some children had forgotten the material they had learned, while others retained their knowledge. The revision process utilized pictures and educational equipment. For example, children were instructed to lift the animal depicted in Figure (1), which aimed to strengthen their hand muscles and reinforce their knowledge of animal names. Another exercise involved matching shapes to their corresponding colours as illustrated in Figure (2). After each correct response, the psychologists provided positive reinforcement through applause and motivational phrases such as “you are smart,” which elicited smiles from the children.



Figure 2.1. The game of lift



Figure 2.2. The game of matching shapes according to colours

Second session: On this day, the psychologists conducted an evaluation, as depicted in Figure (3). The evaluation included exercises such as colouring shapes and writing numbers. The psychologists assisted the children by reading the instructions aloud and repeating the questions as needed. Some children demonstrated high intelligence by answering easily, while others struggled to respond due to difficulties in comprehension and memory retention. Despite these challenges, the psychologists continued to motivate all children, regardless of their performance. Following the evaluation, the psychologists completed a checklist for each student, documenting the skills they had mastered and those they had not. This checklist would be used to identify areas requiring further reinforcement over the next month. Students who performed well in the evaluation would advance to new materials.

Later on, the children proceeded to the high-movement room as shown in figure (4) where the psychologists played music. The children engaged in various physical activities such as jumping and playing with a ball. Additionally, the psychologists participated by dancing with the children, which contributed to the children's happiness and enjoyment.

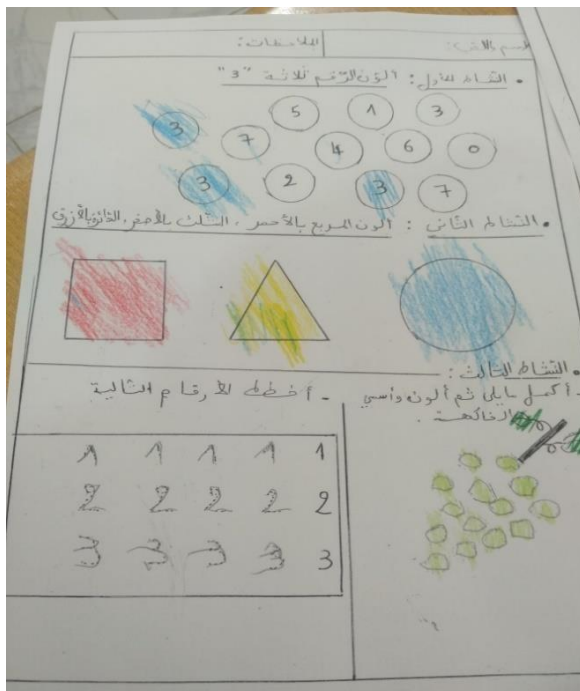


Figure 2.4. An evaluation test

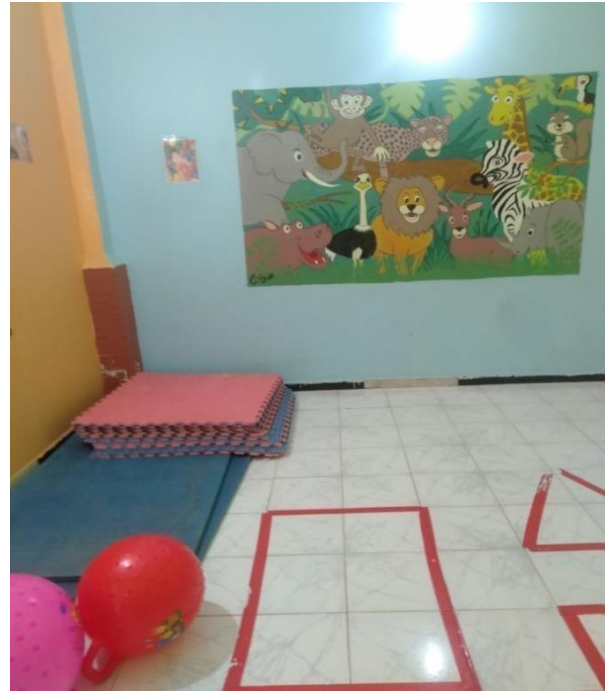


Figure 2.3. The high – movement room

Third session: All the children and psychologists proceeded to the swimming pool, where everyone donned bathing suits as shown in Figure (5) and began swimming. Among the children, some were proficient swimmers, while others were apprehensive about swimming. To address this, swimming coaches were present to teach the children how to swim and help them overcome their fear. After a two-hour swimming session, all participants expressed happiness and satisfaction.

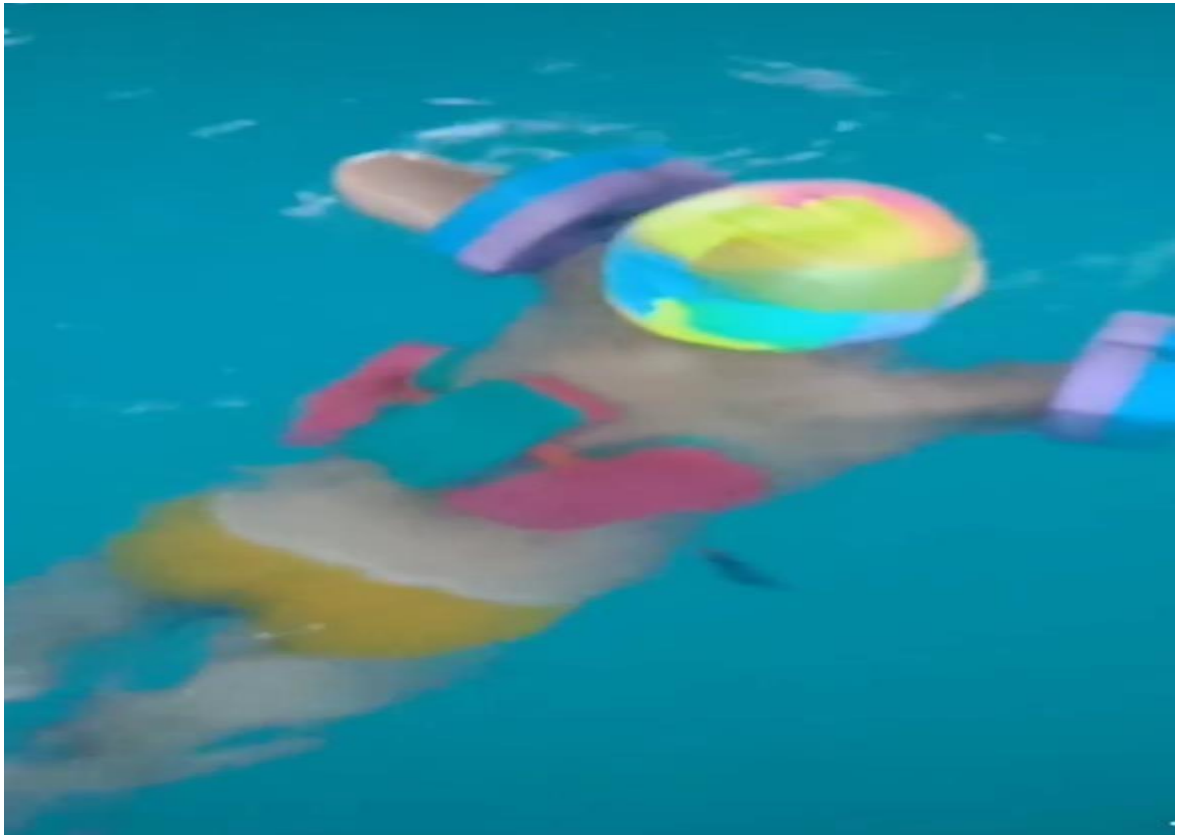


Figure 2.5. Bathing suits

2.6.2.2 AAT Observation Analysis

- **First session:**

The researcher observed the first group, known as Farachat al Amal, comprising children aged 4 to 8 years. Each subgroup consisted of three children with similar severity levels of autism. The activities were divided into five distinct fields:

1. Cognitive Field: Children learned about colours, shapes, fruits, and animals through educational games.

2. Linguistic Communication Field: Psychologists engaged with the children to teach them how to communicate in daily life, including greetings and basic conversational phrases such as "good morning," "how are you," and "goodbye."

3. Fine Motor Skills Field: Activities included creating shapes with dough, passing a ball or a pen, and filling a box with toys.

4. Classroom Skills Field: Children practiced drawing lines by connecting dots, as illustrated in Figure (6), and writing numbers.

5. Gross Motor Skills Field: This involved sports activities where children engaged in various movements or ran on a treadmill but with the help of the psychologist.



Figure 2.6. The exercise of drawing lines

- **Second session:** The researcher observed the second group, known as Nojoom Al Amal, comprising children aged 8 to 13 years. Similar to the first group, their activities were categorized into five fields:
 1. Cognitive Field: Children learned Quranic verses and recognized letters.
 2. Linguistic Communicative Field: Instruction focused on essential language skills needed in school, such as requesting, "give me the green pen," and stating, "I want to write on the board."
 3. Fine Motor Skills Field: Activities included creating lines using solids as depicted in Figure (7), learning how to pray, and holding a pen correctly.
 4. Classroom Skills Field: Psychologists concentrated on teaching the recognition and writing of all letters, as illustrated in Figure (8).
 5. Gross Motor Skills Field: Children practiced movements and engaged in sports activities independently, without the assistance of the psychologist.



Figure 2.7. Creating lines using solids

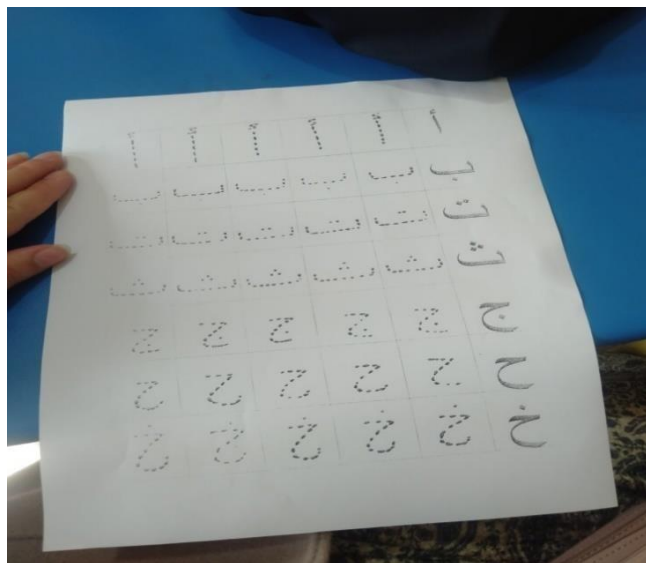


Figure 2.8. Exercise of writing letters

***Third session:** The researcher observed the third group, consisting of adolescents aged 13 to 22. Unlike the younger groups, this group did not follow a structured program as they are considered adults. The primary focus for the psychologists working with this age group was language acquisition. This involved teaching letters and words, progressing to constructing dialogues, answering questions, and understanding the meanings of pictures, as shown in Figure (9).

Additionally, the adolescents participated in various workshops. The cooking workshops included activities such as preparing pizza, making jam, and juice. The manual work workshops involved creating traditional bags, as illustrated in Figure (10). At the end of the year, each participant would receive a sum of money as an incentive to encourage further productivity and to foster independence.



Figure 2.9. Exercise of understanding meanings from pictures



Figure 2.10. Traditional bags

2.6.3 School Observation Analysis

The researcher observed two classes, each consisting of 15 students and 5 teachers. The students were divided into groups of three, each corresponding to a level from the first to the fifth year of primary school. Each teacher was responsible for one level, and all levels were taught within the same classroom. At the beginning of the session, all students recited the morning supplications aloud. Following this, each teacher guided their respective group to a designated corner of the classroom, where the students took their seats.

Each teacher then commenced instruction in various subjects, including mathematics, English, technological sciences, and Arabic. The researcher noted the utilization of educational materials, such as drawing on paper using shapes as shown in Figure (11) and using pictures to teach the names of animals as demonstrated in Figure (12). Throughout the lessons, the teachers consistently repeated the material aloud to maintain student engagement. Additionally, positive reinforcement was employed by all teachers to encourage and motivate the students.



Figure 2.11. An exercise on how to learn drawing



Figure 2.7. Educational game

2.7 Discussion of the Main Results

The interviews and observations conducted with two psychologists from the Remchi and Tlemcen centres and two teachers from Khalil Abd Essalam primary school have yielded significant findings. These results provide the researcher with a substantive basis to either confirm or refute the research hypotheses.

The first hypothesis posited in this research is that specialists can effectively detect autism spectrum disorder (ASD) through the use of the Modified Checklist for Autism in Toddlers (M-CHAT). This hypothesis is strongly supported by both empirical evidence and expert consensus. The results derived from comprehensive interviews and observations unequivocally affirm the widespread utilization and efficacy of the M-CHAT among specialists and psychologists globally. The two psychological specialists with substantial experience diagnosing and managing ASD verified that the M-CHAT is routinely used in their clinical practices. They underlined that the M-CHAT is a critical tool used to screen young children for autism, especially those displaying primary symptoms that indicate the disorder. The evidence gathered through interviews with specialists, coupled with observational data, robustly supports the first hypothesis.

Concerning the second hypothesis, which posits that autistic children in the classroom face challenges related to peer adaptation, weak memory, and

behavioural issues, the findings from interviews and observations support this assertion. All psychologists consulted acknowledged these difficulties, which include struggles in social interaction and forming friendships, as well as difficulties in participating in group activities, exacerbated by memory challenges like difficulty in retaining information from previous lessons which impact their educational progress. Moreover, behavioural issues such as anger tantrums disrupting the class and repetitive behaviors such as hand-flapping were noted. These findings highlight the complexity of the teacher's role in managing these challenges. Thus, the results confirm the second hypothesis.

In the third hypothesis, it was stated that ABA and TEACCH are methods utilized in the education of children diagnosed with autism, the analysis of both interviews and observations supports this assertion. Speech therapists and teachers involved in the study demonstrated familiarity with ABA, which includes techniques such as Discrete Trial Training (DTT) for teaching skills like number identification and colour recognition. Additionally, these professionals utilize positive and negative reinforcement, such as verbal praise following correct responses. Regarding the TEACCH method, which emphasizes learning through visual supports like charts and stickers to clearly depict progress and reinforce positive behaviour. Also, structured environments, this involves organizing furniture, materials, and workspaces in a consistent manner to facilitate learning. These findings confirm the third hypothesis of the current research.

2.8 Recommendations

In the lights of obtained results, the researcher suggests the following recommendations:

-1 Parents must possess an in-depth understanding of their child's disorder to effectively assist specialists in their treatment.

-2 More places must be provided to take care of autistic children due to the limited number of associations in the Wilaya of Tlemcen.

-3 Schools should consider hiring speech therapists to assist children with language production.

-4 Collaboration between psychologists or teachers and parents is essential, as without their cooperation, achieving meaningful results is not possible.

-5 The government should provide free education for children diagnosed with autism spectrum disorder.

-6 The authorities should invest in professional development programs that offer teachers training specifically focused on autism spectrum disorder (ASD).

2.9 Conclusion

In summary, this chapter aimed to clarify the researcher's methods and procedures for data collection in this study. It focused solely on qualitative data analysis gathered through interviews and observations. These two methods were strategically employed to explore and describe the methods of diagnosing autism spectrum disorder, the challenges educators face, and the techniques used in teaching autistic children. The chapter provided a discussion of the main results and examined whether the hypotheses formulated for the research questions were confirmed or refuted. Lastly, the researcher proposed practical recommendations for both specialists and parents to address the challenges they encounter in working with autistic children.

General Conclusion

General Conclusion

Autism is a developmental disorder recognized as one of the most severe and impactful, affecting multiple aspects of a child's development. Teaching children with autism reveals that this task requires comprehensive and multifaceted efforts from education and psychology specialists, as well as parents. Understanding the unique needs of each child with autism and developing tailored educational strategies are essential to achieving the best educational and social outcomes for these children.

It is a hard task for children to study and learn as normal children. Thus, this study aimed at examining ways for diagnosing autism. Additionally, it sought to identify the challenges autistic students encounter in educational environments. Furthermore, it evaluated the strategies used by teachers and psychologists to alleviate these challenges. In order to explain it deeply, this research used two chapters. The literature review defined autism and clarified their causes and characteristics. Furthermore, it described the affects of ASD in learning of autistic children. In addition, the role of associations in preapring kids for schooling and the strategies used to overcome the affects of autism. The second practical chapter, used research tools, analyzed. this chapter formulated a set of recommendations intended to inform future practice and policy in the field.

For this purpose, three research questions have been formulated:

4. What methods do specialists employ to identify autism?
5. What are the challenges that face autistic children during learning?
6. What are the techniques used by psychologists and teachers to overcome these defficulties?

The first hypothesis posited in this research is that specialists can effectively detect autism spectrum disorder (ASD) through the use of the Modified Checklist for Autism in Toddlers (M-CHAT), was confirmed as the main findings of this

investigation revealed that this test is used by most of psychologists in their clinics. They underscore its critical role in screening young children, particularly those exhibiting hallmark symptoms indicative of autism spectrum disorder.

The second hypothesis centers on the challenges encountered by autistic children within classroom settings, including peer adaptation difficulties, weak memory retention, and behavioral issues. The study's overarching conclusion highlights the pervasive presence of these challenges as symptomatic manifestations, thereby complicating the educational journey for both teachers and children.

Regarding the third hypothesis, which posits the utilization of Applied Behavior Analysis (ABA) and Treatment and Education of Autistic and Communication Handicapped Children (TEACCH) methodologies in the education of autistic children, the study confirmed this hypothesis. The data collected from the instruments underscored the efficacy and relevance of ABA and TEACCH methodologies in catering to the educational needs of children with autism.

As with many research endeavors, this study encountered certain limitations. Firstly, logistical challenges arose due to the considerable distance between the researcher's residence and the headquarters of the AAT (Animal-Assisted Therapy) center, occasionally resulting in delays in the researcher's participation in association activities. Additionally, the investigation started later than anticipated due to various factors, including the researcher's academic commitments, such as first-term examinations, and concurrent employment responsibilities. Furthermore, some parents declined participation in interviews, citing tiredness from repeated discussions on the subject matter as their reason.

Effective progress in children with special needs hinges upon the competence and dedication of proficient specialists who diligently fulfill their professional responsibilities. For further research, a comparative study on the impact of ABA and TEACCH on the performance of autistic children could be done in order to improve education for the children with special needs.

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Appandices

Appendix A

الجمهورية الجزائرية الديمقراطية الشعبية

وزارة التعليم العالي والبحث العلمي

جامعة أبي بكر بلقايد تلمسان

كلية الآداب و اللغات

قسم اللغة الإنجليزية

الى مدير مركز التوحيد

بسمة أمل -الرمشي-

تلمسان

الموضوع: طلب ترخيص المداومة لإجراء بحث علمي

انا الممضى اسفله السيد فريد داودي رئيس قسم اللغة الإنجليزية . أتقدم اليكم سيدي مدير المركز بطلبنا هذا والمتمثل في طلب ترخيص لمداومة بحث علمي وذلك بالسماح لطالبتنا " بن عثمان مروة " المولودة في 08/02/2002 بتلمسان تحت اشراف الأستاذة هدام بوعبدالله فائزة لاجراء بحث علمي حول الطفل التوحيدي، وكذلك الاتصال ببعض الاساتذة العاملين بالمركز .
وفي الختام نرجو من حضرتكم قبول هذا الطلب وأخذه بعين الاعتبار.
تقبلوا سيدي فائق الاحترام والتقدير.

ختم وتوقيع رئيس قسم اللغة الإنجليزية .

فريد داودي
رئيس قسم
اللغة الإنجليزية



Appendix B

الجمهورية الجزائرية الديمقراطية الشعبية

وزارة التعليم العالي والبحث العلمي

جامعة أبي بكر بلقايد تلمسان

كلية الآداب و اللغات

قسم اللغة الإنجليزية

الى مدير مركز التوحيد

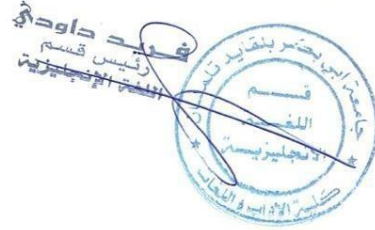
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وفي الختام نرجو من حضرتكم قبول هذا الطلب وأخذه بعين الاعتبار.
تقبلوا سيدي فائق الاحترام والتقدير.

ختم وتوقيع رئيس قسم اللغة الإنجليزية .

فريد داودي
رئيس قسم
اللغة الإنجليزية



Appendix C

Psychologist's Interview

I am master student in English conducting research on the special education needs of autistic children within the city of Tlemcen. Your collaboration would significantly contribute to the smooth progression of my study, and your assistance would be sincerely valued.

1. When the association established?
2. How many children was taken in charge from the starting of the association?
3. Who are the professionals working with you?
4. Does a large number of children affect their learning?
5. Do you collaborate with their parents and how?
6. What are the primary challenges you encounter with individuals on the autism spectrum disorder and their parents?
7. What methods do you use to detect autistic children? Do you have specific assessments tools or criteria?
8. What are the teaching strategies do you employ for autistic children?
9. How do you handle situations when a child is reluctant to engage in the learning activities?
10. Are there any extracurricular activities offered outside the association?
11. What are the differences between children who have recently enrolled (pre-study) and those who have been studying for a long period (poste-study), in terms of their progress and development?
12. Are these children able to transition to mainstream schools after completing their studies at your association?
13. For those who are selected to carry on within schools, there are any specific criteria?
14. Do you selects special schools to work with you? How?
15. Is there are a follow-up process for children after they enrol in schools?

Appendix D

Teacher's Interview

I am master student in English conducting research on the special education needs of autistic children within the city of Tlemcen. Your collaboration would significantly contribute to the smooth progression of my study, and your assistance would be sincerely valued.

2. What is your perspective on the integration process of children from the association? Do they seamlessly assimilate into the system, or do they require additional time for integration and adaptation?
3. Have these children demonstrated success in their studies within the educational system?
4. What are the teaching strategies do you employ to facilitate the learning process for the autistic students?
5. What are the challenges do you encounter while teaching these children?
6. Are specialized assistance professionals available to support these children during their lessons?
7. Do you maintain ongoing communication with the association for assistance or continued monitoring?

Appendix E

Parent's Interview

I am master student in English conducting research on the special education needs of autistic children within the city of Tlemcen. Your collaboration would significantly contribute to the smooth progression of my study, and your assistance would be sincerely valued.

1. How did you first realize that your child might be autistic?
2. Initially, did you struggle to accept your child's autism diagnosis?
3. How do you handle situations when your child experiences unexplained tantrums of crying or anger?
4. How do you typically collaborate with the teachers regarding your child's education? How did you hear about the association? And how you get in touch with them?
5. How did you hear about the association? And how you get in touch with them?
6. What differences have you observed in your child since he began studying at the school

Summary

This study aims to explore the educational practices employed for autistic children across three distinct settings: two autism associations and one specialized school catering to autistic students. The research draws upon insights from a diverse sample comprising two psychologists, two teachers, and six parents. Utilizing qualitative methods, specifically structured interviews and non-participant observations, data were gathered to discern the approaches utilized by professionals in detecting, instructing, and addressing the challenges faced by autistic children.

Key words: autistic children, psychologists, teachers, strategies.

Résumé :

Cette étude vise à explorer les pratiques éducatives utilisées pour les enfants autistes dans trois environnements distincts : deux associations autisme et une école spécialisée accueillant des élèves autistes. La recherche s'appuie sur la perception d'un échantillon diversifié comprenant deux psychologues, deux enseignants et six parents. En utilisant des méthodes qualitatives, notamment des entretiens structurés et des observations non participantes, des données ont été recueillies pour discerner les approches utilisées par les professionnels pour détecter, instruire et relever les défis auxquels sont confrontés les enfants autistes. Les résultats mettent en évidence une similarité dans les méthodes et les stratégies employées par les psychologues et les enseignants dans les différents environnements, indiquant une approche cohérente pour répondre aux besoins éducatifs des enfants autistes.

Mots-clés : enfants autistes, psychologues, enseignants, stratégies.

ملخص:

تهدف هذه الدراسة لاستكشاف ممارسات التعليمية مستخدمة للأطفال ذوي التوحد عبر ثلاث اعدادات مميزة : جمعيتي التوحد، ومدرسة متخصصة تخدم الطلاب ذوي التوحد. يعتمد البحث على رؤى من عينة متنوعة تضم اثنين من الأطباء النفسانيين، واثنين من المعلمين، وست من الأباء. باستخدام أساليب نوعية، وتحديد المقابلات المنظمة والمراقبة غير مشاركة، تم جمع البيانات لتحديد النهج المستخدمة من قبل المحترفين في كشف التحديات التي يواجهها الاطفال ذوي التوحد وتوجيههم والتعامل معهم.

الكلمات المفتاحية: أطفال التوحد ، أطباء نفسانيين، معلمون، استراتيجيات