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**Investigating Strategies in Teaching English Language for Autistic
Children**

Case Study: Psyllium Center teachers and psychologists Annaba

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Dedication

This work is dedicated to my life model, my superwoman and the queen of my life, my mother, Mrs. Wahida Didi, for her endless love, sacrifices and support. No dedication can be eloquent enough to express what you deserve. May God, the almighty, preserve you and grant you health, a long life, and happiness.

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List of Abbreviations and Acronyms

ASD: Autism spectrum disorder

EFL: English as a Foreign Language

ASHA: American Speech Hearing Association

ATCA: Autism Treatment Center of America

IQ : Intelligence Quotient

SON-R: Snijders-Oomen nonverbal intelligence test

WM: Working Memory

ToM: Theory of Mind

ESLS: English as Second Language Students

HFA: Highly Functional Autism

CDI: Communicative Development Inventory

IDEA: Individuals with Disabilities Education Act

UNESCO: United Nations Educational Scientific and Cultural Organization

ABA: Applied Behavioral Analysis

PRT: Pivotal Response Training

PECS: Picture Exchange Communication System

TEACCH: Treatment and Education for Autistic and related Communication Handicapped Children.

IPT: Interpersonal therapy

VBT: Verbal Behavior Therapy

IEP: Individualized Educational Program

IEPs: Individualized Educational Programs

L1: First language

Abstract

Education is a vital system for the development of cognitive skills. Recently, the recognition of students with autism spectrum disorder has been increasing in Annaba, as well as a better understanding and awareness of the difficulties autistics encounter in foreign language learning. This descriptive research investigates strategies in teaching English as a foreign language to autistic children; the research is conducted at Psylluim Center, Annaba, as it dealt with three teachers and two psychologists. To achieve the stated aims, an interview was conducted with teachers in order to know more about the most effective teaching strategies and to highlight their benefits in improving autistic children's cognitive abilities. In addition, a questionnaire was handed to psychologists in order to find out learning difficulties within autistic children. Accordingly, the interview and the questionnaire results were analyzed qualitatively and quantitatively. Results revealed that EFL teachers struggle while dealing with autistic children and psychologists confirmed that the psychological training is needed for both in order to enhance autistic children cognitive abilities. In addition, results indicate that the use of applied behavior analysis treatment and education of autistics and related communication handicapped children strategies are required to guarantee the improvement of the children's overall cognitive abilities and EFL learning in particular. The study results lead to providing some of the practical implications and recommendations that would enhance the teaching of English to Autistic Children.

Keywords: Autism spectrum disorder, teaching strategies, EFL autistic children, Cognitive abilities

ملخص

التعليم نظام مهم لتنمية المهارات المعرفية. في الآونة الأخيرة ، تزايد التعرف على الطلاب المصابين باضطراب طيف التوحد في عناية ، بالإضافة إلى فهم وإدراك أفضل لل صعوبات التي يواجهها التوحد في تعلم اللغة الأجنبية ، يبحث هذا البحث الوصفي في استراتيجيات تدريس اللغة الإنجليزية كلغة أجنبية للأطفال المصابين بالتوحد ؛ أُجري البحث في مركز سيلويم بعنابة ، حيث تناول ثلاثة أساتذة واثنين من علماء النفس. لتحقيق الأهداف المذكورة ، تم إجراء مقابلة مع المعلمين من أجل معرفة المزيد عن استراتيجيات التدريس الأكثر فاعلية وتسلط الضوء على فوائدها في تحسين القدرات المعرفية للأطفال المصابين بالتوحد. بالإضافة إلى ذلك ، تم تسليم استبيان إلى علماء النفس من أجل معرفة صعوبات التعلم لدى الأطفال المصابين بالتوحد. وبناءً عليه تم تحليل نتائج المقابلة والاستبانة نوعياً وكمياً. أظهرت النتائج أن معلمي اللغة الإنجليزية كلغة أجنبية يعانون أثناء التعامل مع الأطفال المصابين بالتوحد، وأكد علماء النفس أن التدريب النفسي ضروري لكليهما من أجل تعزيز القدرات المعرفية للأطفال المصابين بالتوحد. بالإضافة إلى ذلك ، تشير النتائج إلى أن استخدام علاج تحليل السلوك التطبيقي وتعليم التوحد واستراتيجيات الأطفال ذوي الإعاقة في التواصل مطلوبان لضمان تحسين القدرات المعرفية العامة للأطفال وتعلم اللغة الإنجليزية كلغة أجنبية بشكل خاص. تؤدي نتائج الدراسة إلى تقديم بعض الآثار العملية والتوصيات التي من شأنها تعزيز تعليم اللغة الإنجليزية للأطفال المصابين بالتوحد. الكلمات المفتاحية: اضطراب طيف التوحد ، استراتيجيات التدريس ، الأطفال المصابين بالتوحد ، القدرات المعرفية

Chapter One
Introductory Chapter

Introductory Chapter

Introduction

Learning the English language has become necessary for the development of communities and for enhancing their cognitive abilities. Teaching children is a complex process for teachers, especially when they face children with specific abilities, such as diagnosed children with Autism spectrum disorder (ASD). This chapter is the introductory chapter to the research study, which will focus on how autistic children learn the English language and on the most effective strategies to enhance their learning process. It attempts to present the statement of the problem that promoted the desire for this investigation and the aims beyond conducting this research. Also, it presents the research questions along with the hypotheses. This chapter also identifies the methodology used and provides a brief caption about the study's overall organization.

Statement of the Problem

Parents are often told not to bother teaching their child a second language if they have ASD out of fear that it will add to their difficulties and not all the teaching strategies are effective. Aparna (2018) stated that some researchers, such as (Bialystok, 2001; Bialystok et al., 2005; Cenoz & Gorger, 2015) have argued convincingly that living as a bilingual person and having to switch languages increases cognitive flexibility. But only a few studies demonstrate that this advantage may also extend to children on the autism spectrum.

There are some published books, research and guides related to the characteristics, obstacles and difficulties that some autistic children may face in their learning process, such as "LOOK ME IN THE EYE: My life with Aspergers", a book written by John Elder Robinson in 2007. Also, "TEACHING YOUNG CHILDREN WITH AUTISM

SPECTREUM DISORDERS TO LEARN" was written by Liz Hannah in 2001.

However, there are a few reports about the strategies and teaching English methods for children with autism disorder, i.e. (Bleuler, 1987). Also, autistic children often have difficulty learning in traditional ways because their brains just don't process information in the same way that other children's do (Wire,2015). Teachers are struggling to find appropriate strategies to help autistic children due to a lack of research.

Furthermore, teachers must gain a better understanding of the strategies that range from the entire system to common sense tricks that will assist autistic students in becoming more successful. The choice of the strategy depends on the students' needs and the degree of severity of the student with ASD. If the choice is wrong, students will be in a stand-still situation where they can not understand or learn the given information.

The Aims of the Study

The objective of the current study is to investigate the ability of autistic children to learn vocabulary in the English language (physical and cognitive characteristics). Because the primary focus in previous years had been solely on the obstacles and difficulties that they might face in their learning. By doing so, we shed light on the most suitable strategies and teaching activities for the English language for autistic children, in order to enhance their learning abilities.

The Research Questions

This research attempts to answer the following questions:

1. What are the most effective strategies for teaching English to autistic children?
2. What are the advantages of learning English for autistic children?
3. How can teaching for students with autism be improved in the future?

The Research Hypotheses

On the basis of the questions mentioned above, we hypothesize that:

1. The incorporation of the right strategy affords pedagogical benefits for autistic children's cognitive skills.
2. We assume that there is a range of effective strategies used in teaching English to autistic children.
3. Psychological training helps in choosing affective strategies that matches with autistic children's needs and abilities.

The Significance of the Study

This research is significant because it contributes to:

1. Help Teachers of English implement effective strategies to teach a successful lesson to autistic children in an English language class.
2. Help autistic children to enhance their learning abilities and comprehension.
3. Raise public awareness that students with autism are part of the community who can take part in foreign language learning settings.
4. Concentrate on improving autistic children's ability to learn and to bet for the variety.
5. Allow for the development of new strategies for teaching English to autistic children and the creation of a better educational environment.

Research Method

Research design

The researchers used a descriptive approach to determine the most effective strategies for improving autistic children's English language learning in order to answer the research questions and prove the hypotheses. Within the research paradigm, both qualitative and quantitative data analysis methods were used.

First, an interview was done with Psyllium Center English teachers, since there is no acceptance of such cases in public schools. Second, a questionnaire was distributed to Psyllium Center psychologists in order to form a more objective picture of their learning development.

Participants

Participants in this study included teachers of English with experience teaching autistic children as well as school psychologists. The choice of this sample was based on two main factors:

- School psychologists provide a better understanding of how to deal with autistic children, to highlight their abilities, and to help teachers create an atmosphere that makes English language acquisition easy for them.
- The second is that teachers of the English language for autistic children have background knowledge of teaching strategies and techniques.

Data Gathering Tools

To guarantee that the data collected is as valid as possible, a set of tools were carefully chosen to achieve delicate and reliable results. An interview was conducted with teachers of English of autistic children in order to confirm whether it is true or not that the

degree of effectiveness of teaching strategies and techniques is correlated with their learning development. In addition, a questionnaire was administered to psychologists to form a more objective picture of autistic children's way of learning a foreign language.

The Structure of the Dissertation

This dissertation is divided into five chapters. The first chapter is an introductory chapter to the research, which contains the research questions, the research hypotheses, the aims of the study, the method used and the research design. The second chapter deals with the review of literature related to the key elements of the topic concerning Autistic children and their English learning strategies. This chapter is basically concerned with giving a better comprehension of the accumulated work concerning the key elements of the topic.

The third chapter covers the methodology applied in the research process, starting from the method, approach, the research design, and the instruments used for collecting the data. This chapter aims to provide readers with an overview of the practical framework. In addition, the fourth chapter introduces the data obtained through questionnaire surveys and interviews in which the collected data is examined to determine whether the hypothesis presented is achieved or not.

Finally, the researcher discussed the final findings in depth, including limitations and recommendations for the Ministry of Education, English as foreign language teachers, and parents of children with ASD and future research studies.

Conclusion

This chapter is an overview of the research plan. First, the researcher introduced the research by using high-level terms and explaining the context of the research. Furthermore, the researcher described the research problems, objectives, questions, hypotheses, and methods used. Furthermore, the researcher demonstrated the significance of her study by explaining why the research is worth doing and the value it will provide. Finally, the research ended up in the structure of the dissertation where a brief outline of the structure is needed to help orient the reader.

Chapter Two

Literature Review

Literature Review

Introduction

Many families stubborn of the child who cannot communicate as a body without intellect. Further, autistic child suffers a lot from oblivion of their cases in different educational system. According to Firth (1996) "Autism is a developmental disorder affecting consistently social and communicative skills, differs from most mental handicap in showing a characteristic pattern of poor intact, and even superior cognitive abilities". Each and every person with Autism Spectrum Disorder (ASD) has their own unique thinking, personality, weakness and strengths like everyone else. Autistic children have a degree of developmental delays, these procrastinations can range from mute and deeply retarded to highly gifted and intelligent individuals.

This chapter covers a brief overview of ASD and what causes it as well as the physical characteristics and delayed development of autistic children, plus their cognitive abilities and how to overcome their intellectual disabilities. Moreover, it sheds light on strategies of teaching English as a foreign language and language learning opportunities for autistic children.

Part One: Autism Spectrum Disorder

Definition of the Autism Spectrum disorder

Defining the term autism has been the task of many researchers (e.g. Bleuler, 1950; Rutter, 1972; Murray, 2008; Nadesan, 2005; Silverman, 2011). And is quite similar based on the experiences of those who have studied this brain disorder and its symptoms, negative and positive aspects, which they may imply. According to the American Psychiatric Association, ASD is a neurodevelopmental disorder characterized by deficits in social communication and the presence of restricted interests and repetitive behaviors. Kanner (1985) states that autism

is due to a specific brain abnormality, this might be caused due to three different reasons; such as, genetic fault, brain disease, or brain damage, each reason involves different factors. According to Firth's (1996) definition "Autism is a developmental disorder affecting consistently social and communicative skills, differs from most mental handicap in showing a characteristic pattern of poor intact, and even superior cognitive abilities".(p. 108)

Furthermore, Autism is a neurological disorder which often causes communication and social interactive inability. It is characterized by social interaction-impaired and communication, and by restricted and repetitive behavior. The diagnostic criteria require that symptoms become apparent before a child is three years old (American Psychiatric Association). Additionally, Autism affects information processing in the brain by altering how nerve cells and their synapses connect and organize; how this occurs is not well understood (Rutter,2005).

According to American Psychiatric Association(2003), ASD is usually first diagnosed in childhood with many of the most-obvious signs presenting around 2-3 years old, but some autistic children develop normally until toddlerhood when they stop acquiring or lose previously gained skills. Boyd & Shaw (2010) found that according to the American Psychiatric Association (2003), there are three observable features of autistic people: a) behavioral deficits in social awareness and reciprocity, b) behavioral deficits in producing and understanding communication and language, and c) behavioural excesses in the display of odd, repetitive behaviours and interests (p. 211). In order to be officially diagnosed with autism, the onset of these core features must occur before the child's third birthday (Boyd & Shaw, 2010).

Physical Characteristics and Symptoms of Autism

Physical characteristics

Any of three abnormal physical traits can help diagnose autism: an asymmetrical face,

tufts of hair growing in the incorrect direction, or a large forehead (Ozgen et al., 2012). In a 2011 study by the same scholars, compared the physical characteristics of 224 children with autism to 224 controls who were age and gender matched in pairs.

There are a lot of features, such as deeply set eyes, expressionless faces and thin upper lips that are more common in autistic children and classified according to severity. Common features, such as prominent ears, are present in more than four percent of the general population, whereas 'minor' abnormalities are rarer. In the same vein, researchers discovered two main abnormalities an open-mouthed appearance and expressionless faces (no expression or feelings is shown) that are severe dysmorphologies (a condition in which part of the body is a different shape from normal) caused by abnormal development (Ozgen et al., 2011).

Autism Symptoms

The timing and severity of autism's early signs vary widely. Some infants show hints in their first months. While in other individuals, symptoms become obvious when they are 2 or 3 years old. Not all children with autism show all the signs, for this reason, a professional evaluation is crucial. According to Autism Speaks Foundation (n.d), the following "red flags", if appear, may indicate the child is at risk for an autism spectrum disorder:

By 6 months:

- Very limited or no big smiles
- Few or no eye contact

By 9 months:

- Little or no sharing of sounds, smiles or other facial expressions

By 12 months:

- Limited or no babbling

- Few or no back-and-forth gestures such as pointing, showing, reaching or waving
- Little or no response to name.

By 16 months:

- Very few or no words.

By 24 months:

- Very few or no meaningful, use of two-word phrases (not including imitating or repeating)

At any age:

- Loss of previously acquired speech, babbling or social skills
- Avoidance of eye contact and
- preference for solitude
- Difficulty in understanding other people's feelings
- Delayed language development
- Persistent repetition of words or phrases (echolalia)
- The repetition of behaviors (flapping, rocking, spinning, etc.)
- Unusual and intense reactions to sounds, smells, tastes, textures, lights and/or colors.

Common Behaviour Problems

Most autistic children have characteristics in common, but you may not see all properties in a case, they may:

- Have speech and language delay
- Lack of flexibility
- Be unaware of danger (they may hurt themselves or fall down frequently from height)
- Repeat words (echolalia)

- Talk without emotional expression
- Flip objects around
- Have difficulty in changing from one activity to another
- Get upset in noisy places
- Get lost frequently
- Have unacceptable habits, for example eating things like wood, paper , etc. flap hands
- like only a few certain foods
- Stick to their own topic they are talking
- Be unable to do daily routines such as brushing teeth, wearing clothes... etc.
- Have difficulties in reading and writing (without understanding the meaning called Hyperlexia) (American Speech - Language - Hearing Association [ASHA], n.d.).

Problems in Social Communication

Autistic children live their life in their own galaxy without interacting with others; they show desolation and selfishness. It may be difficult for them to:

- Play with others and share toys
- Understand other children feelings
- Make friendships
- Express feelings and emotions (they may seem stony)
- Understand rules of games in peer group
- Understand gestures and expressions follow directions (American Speech - Language - Hearing Association [ASHA], n.d.)

Diagnosis

Diagnosing ASD is very hard since there is no medical test to diagnose it. In some, cases autistic children are mistakenly diagnosed with a different disorder or are told that nothing is bad. Sometimes children are diagnosed as autistic when they are actually not. Autism is not a disease to cure it, but it is a complex demeanor that makes all the doctors puzzled of how to adjust that behavior.

Therefore, doctors and healthcare professionals should rely on reliable methods to ensure the evaluation of children such as observation, talking with parents, psychologists, and therapists in order to make a diagnosis. They examine a core group of three behaviors that tend to hallmark the disorder.

The first behavior is social interaction which reflects the inability of a child to interact with others. Secondly, verbal interactions, children may have difficulty vocalizing needs and talking. In addition, autistic children rely on grunts and pointing and thirdly doctors look at repetitive behaviors and if a child has a narrow field of interests that may be exclusive from others. (Autism and Developmental Disabilities Monitoring Network, 2015). Since Autism is such a wide-ranging disorder with many levels of severity, it is not possible for one doctor to decide and make a diagnosis. Most of time professionals have to work together and compare observations and notes.

Autism Treatment Center of America, (ATCA), (n.d) proposed two steps for professionals and doctors to well diagnose the disorder. These are:

- First, since verbal communication may be a problem, hearing tests are generally one of the first tests to be done completed. Once hearing tests are completed, a complete neurological exam is given, along with cognitive and language testing.

- Second, neurologists, psychologists, and speech therapist are needed, and at the end of test parents must ask doctors for better understanding of the prognosis and decide together which way to proceed for the treatment.

In other words, the diagnosis of children with ASD is a difficult process that requires a lot of efforts and teamwork in order to make the correct diagnosis.

Cognitive Abilities of Children with ASD

Profile of cognitive skills in autism

The cognitive profiles of individuals with ASD vary widely, with symptom severity differing among patients with the same diagnosis (Lai et al., 2013; Lord et al., 2014). To that, these different features can also be seen in the same individual, with some abilities preserved and others more impaired, where the same individual serves as the reference parameter (Munson et al., 2008; Mecca et al., 2014). Development of cognitive abilities in ASD is associated with positive outcomes, as shown by many studies observing the relationship between cognition and adaptive functioning of these individuals.

Moreover, findings indicate a significant positive moderate relationship between intelligence and the abilities of communication, socialization and autonomy in activities of daily living (Kanne et al., 2011; Pugliesi et al., 2015). Taking into consideration the presence and severity of symptoms, there is also evidence of a significant negative relationship between intelligence and the presence of behavioral deficits associated with the disorder, such as socialization, communication and restricted patterns of interest (Macedo et al., 2013; Mandelbaum et al., 2006; Mecca et al., 2014; Szatmari et al., 2003).

Bergeron et al. (2006), highlight that the different cognitive abilities have distinct different degrees of importance for overall intellectual functioning. This depends on how

much a given specific ability correlates with general intelligence. Additionally, these aspects can be overlooked when only overall score of total Intelligence Quotient (IQ) scores are analyzed.

As a result, cognitive factors and deficiencies cannot be permanent; it expounded a person's cognitive profile that is not extended from childhood to adulthood when their cognitive abilities are known to become older. Growth is a continual cycle of maturity. (Couzens & Cuskelly, 2014, p.55).

That is to say that, the skills varies from child to child. Children have different cognitive abilities (weaknesses and strengths) which are correlated with each child's general intelligence. Those cognitive abilities are cluster of tools that the child needs in order to learn.

Further, autistic children commonly have cognitive strengths, such as an acute attention to detail, or memorizing vast amounts of information about a certain subject. In addition to cognitive challenges and weaknesses, such as delayed executive function skills (difficulty planning, paying attention, initiating a task, being flexible, and controlling emotions and behaviors.) , issues in sensory processing of information (often sensible to (including noise, crowds, light, clothing, temperature...ect) and theory of mind (struggle to navigate social interactions).

We confirm that the more we understand the unique cognitive profile of children with autism, the more we can help them develop by finding out the appropriate and effective learning style that matches with their needs.

The Working Memory of Autistic Children

Working memory is an integral temporary storage and retrieval device. It is the brain

network which helps visual and verbal information be processed every day while people go about their lives. It also promotes practices including knowledge carrying and exploitation, such as reading and language processing understanding written information, or retrieves and dials a telephone number. (Hughes, 2006)

Most research has found that people with autism perform poorly on executive function measures (Benetto et al., 1996). A general decrease in Working Memory (WM) is one of the limitations, although some studies have found that working memory is not impaired in autistic children relative to controls matched for IQ (Russell et al., 1996).

According to Hughes, WM is made up of three components:

1. The central executive - the part of the system responsible for processing information
2. The phonological loop - responsible for the temporary storage of verbal information.
3. The visuo-spatial scratch-pad - responsible for the temporary storage of visual and spatial information.

In the study of (Habib et al., 2019) a connection between autism and WM was reported and they also highlighted that WM impairments appear to involve both phonological and visual spatial arenas.

According to the studies mentioned above, each child with ASD has a unique cognitive profile and interests. And each child has his or her own mechanism for processing information. In addition, WM refers to thoughts or information held temporarily in your memory, so that they are available when you need them to complete a task, so some children can store information more than others. In essence, children with autism would find it very hard to remember information if they needed a cognitive organizing strategy in order to aid recall or if they had to detect such an organizing element in the information itself. In other

words, Learning EFL for autistic children can be beneficial in training and enhancing the working memory performance because it's considered as learning new skill (alternative intervention).

Theory of Mind and Individuals with Autism

An overview about theory of mind

Hopper (2019) wrote that a theory of mind is related to a willingness to perceive the mental states of certain people and to accept that certain mental states may differ from ours. Further, the emergence of mind theory is a crucial step in the growth of infants; an advanced theory of mind helps one manage problems, improve cognitive skills, and accurately anticipate the actions of others.

Giaourti, Alevriadou and Tsakiridou (2010) wrote that most studies on ToM depend on false belief tasks of knowing whether or not a child has a mental state understanding.

In 1985, Baron-Cohen, Frith and Alan Leslie reported that autistic children fail the false-belief test. Children with Down syndrome passed the test, despite having lower intelligence quotients than those with autism (Tager-Flusberg, 1992). The research concluded that autism results in a delay within the progress of ToM, which people with autism have difficulty understanding the mental states of others. Astington & Baird (2005) suggest that different aspects of language are important for developing theory of mind. Thus, these include communication in social contexts, such as between mother and child or in peer interactions, knowledge of words and concepts referring to mental states and complex grammar, especially sentence structures wont to express mental states.

Moreover, they also use ToM to explain that language skills do not focus on social interaction or social interpretation, especially reading and writing, are preserved. In the same line, people with an impaired ToM can interact with people , but will fail in deducing the right state of the interlocutor's mind; therefore, they will not leave any accommodation in their

conversation (Prainsson, 2012). Children with ASD are considered as being communicatively egocentric due to their lack of understanding of other people's knowledge and beliefs (Boucher, 2009). Thus, teachers want to teach students conversational techniques that will enable them to communicate in conversation and provide them with interlocutors who are more sensitive to their needs

Behaviorism

This theory of language learning is the work of psychologist Skinner. In the late 1950s, Skinner theorized that language learning is similar to any other type of learning, as the formation of habits. With his work in psychology, Skinner saw learners basing their learning on stimulus and response. When children imitate the language produced by those around them, their attempts to reproduce what they heard received positive reinforcement, either praise or successful communication with another. Accordingly, this encouraged children to continue to "imitate and practice these sounds and patterns until they formed habits of correct language use" (Lightbown & Spada, 2006, p. 10).

In addition, Mitchell and Myles continue the complication that mother tongue language habits interfere with this process, either helping or inhibiting it. Learning will take place easily when structures in the second language are similar to those of the first one. However, if structures are realized differently in the first and second language, then learning will be difficult (p. 31).

For teachers who instruct their students from the Behaviorist point of view, there are many lessons where "practice makes perfect" via a "drill and kill" approach. This type of instruction is very repetitive and solidifies the vocabulary and key points of the new language before moving on to the next step. The autistic EFL learner may benefit from the standard "drill and kill" lessons due to his favor of repetition of words and phrases (Volkmar & Wiesner 2009). Students' errors should be corrected immediately, by the teacher, in order to

not form an incorrect habit. Therefore, when working with English as Second Language Students (ESLS) with ASD, Volkmar and Wiesner suggested that the teacher should correct errors immediately, as it will likely discourage the echolalia of incorrect speech.

Furthermore, children with ASD tend to repeat things they hear or they see thus repetition attracts their attention. Autistic children learn from the imitation behaviors or practices and teacher role is to praise or reward them in order to motivate them when they are correct and punish them when they are doing a negative behavior. We concluded that behavioral learning strategies should be involved in teaching on the academic side; autistic children can develop greater focus, increased class participation, and enhanced their EFL development. Teachers of EFL will be able to reduce challenging behaviors and replace them with more appropriate behaviors.

Social Interaction Theory

Recently theorists have focused on the importance of language input children receive from their surroundings. Lev Vygotsky (1978) is one of social interaction theorists. Vygotsky's theory stresses the fundamental role of social interaction in the development of cognition and he believed strongly that society plays a important role in the process of building meaning. He argued that learning is key of the process of developing culturally organized, specifically human psychological function (1978).

In (Vygotsky, 1978) perspective a child learns a second language in a process that is initially regulated by others, and mediated through language.

Due the lack of social skills in children with ASD autistic children may find some learning difficulties so EFL teacher should know more about autistic children in order to find the appropriate strategies.

Language Role in the Communication and its Development in Children with ASD

“A language is system of arbitrary vocal symbols by means of which a group co-operates”.
(Bloch &Trager, 2001).

According to Bloch and Trager (2001) language is the system of human communication by means of a structured arrangement of sounds or their written representation to form larger units. For example: morphemes, words, sentences. Communication is important to deliver a message between human beings, but sometimes not all people find it easy to realize a real communication like children with special needs taking as example children with ASD. According to Jennifer Suzanne (2015) on explaining the importance of the communication for every individual “You should be aware of your communication with yourself, others, effectively use and interpret verbal and nonverbal messages, listen and respond truthfully to others” (p.4). Suzanne made it clear on two specific points of a communication: individual can communicate with a non-verbal language and within themselves which is the case of autistic learners. They tend to live their own world and practice an individual communication.

Children with ASD can find it difficult to communicate with other people. They might be slower to learn and develop language, to not have language at all, or have problems with understanding or using spoken language. They might not use gestures to form up for the issues they need with words and to convey a message. In addition, Autistic children mostly communicate to ask for something and do not tend to communicate for social reasons. (Language Development in Children with ASD, 2015)

Vivienne Wire (2005) described a number of facts and observations on autistic children; he said that they don't feel comfortable with people around them. They can hate working on groups and prefer working alone and independently. He added that learning a

foreign language can make a useful contribution to raising an autistic pupil using some strategies described later.

Links between Language and Cognition

Psychologists have given attention to the way in which language and speech are utilized used for cognitive functions. When individuals start to find out and master a language, they think in terms of words, they reason, recall and do mental arithmetic in words either silently or aloud. For example, depending on our understanding of short- term memory functioning (which is important for most mental processes), it is based on silent speech and it develops as children's speech facility increases. Storage and recall from long term memory is also dependent on organizing the information on the basis of meanings conveyed by language i.e., grouping items into similar classes such as fruit, animals or clothes. Currently, there's considerable interest within the inter-relationships between the event of speech, language and memory abilities (Gathercole, 1993).

Whorf (1956) hypothesized that speakers from various languages are able to understand, interpret and experience the world in specific ways. This cognitive delay may be in part the consequence of the language learning difficulties because every significant delay in language would eventually contribute to a delay in comprehension, because language is an important tool for learning and understanding. The further we can resolve language and communication challenges for infants, the more prepared they are to develop and enhance cognitive skills. (Buckley, 1993).

Second language learning has in ASD received little attention. Not been well studied in ASD. From among a few studies, Wire (2005) has introduced "the triad of impairments" in ASD, he confirms that second language learning can help autistic children these individuals. The triads of impairments are explained below:

1. In ASD, social contact is usually impaired. Learning a foreign language might help raise an

autistic student's awareness of social abilities, beginning with early efforts at social "meetings and greets." Modeling and urging by the teacher and a small group of students may also be beneficial.

2. Individuals with ASD have been seen to engage in unusual social communication. This implies that these students' voices may be too soft or too loud, their speech may be garbled and long-winded, or it may be too brief, and there may be intentional muteness, or word and phrase repeating. Some individuals with ASD find direct eye contact with others difficult, even painful, and should specialise in the mouth or some extent beyond the face. Patience and prompting are required in a subject such as foreign languages, where oral communication is so important, but this subject has the potential to help the students with ASD communicate more appropriately, as all students must demonstrate their ability to understand others and be understood by others .

3. Children with ASD can exhibit a lack of flexibility in a variety of ways, although just the most common one is discussed here. The genuine difficulties that most students with ASD experience in coping with change are a significant problem for the teacher. It may take some time for them to adjust to a new school, new teachers, and even a new topic. These pupils may not like it if a supply teacher takes and varies the routine, so prior warning to pupil can help. In these examples, the autistic student may arrive for language class unfocused. Autistic children may do the class activities slower than others and they may need prompting and motivation. However, the lack of flexibility associated with ASD students is matched by a preference for regularity, rote learning, and extensive repetition. They may apply themselves well to learning vocabulary, numbers, set phrases and grammar, which are taught in a straight forward way, and thus acquires a good basic grounding that helps them through the more challenging social interaction aspect of learning a language.

In other words, we can say that teachers and psychologists should be aware that

autistic children need more time and effort to learn a foreign language. Furthermore, learning a second language has many benefits for autistic children, such as becoming more socially involved, communicating properly and becoming more flexible.

Learning for Autistic Children

"Autistic children have sufficient intelligence to develop and achieve high performance in any subject" Kanner (1965, p.66). He found that autistic children can develop (HFA), which stands for highly functional autism. This HFA term was named this way because, during his research, it had the opportunity to observe that a child was able to learn three languages at the same time, did an excellent job of chess, understood mathematics, and was not limited by their condition. Children can develop such a condition, Kanner (1965) stated that at least 25% of autistic children can achieve such a state and sometimes this is innate. In this case, the child can develop cognitive skills and develop a high level of understanding of complex subjects like chemistry, math or science.

Kanner (1965) explains that skills like painting, drawing, language learning, music, and art can be endowed with such a state, which is a really interesting fact as autistic children actually benefit from such a state, and of course through having an entourage, which can help them, address all of these positive facts.

Madden (2015) states that "there are three main cores in autism spectrum disorder that have been discovered: getting affected in social interaction, language and communication, and repetitive behavior". These three main mechanisms or patterns this disorder follows are not an im Specialists pediment for these children to attend regular classes with regular children.

Bilingual Children with Autism

Generally recommend exposing autistic children with bilingual parents to only one language. They emphasize that bilingualism is too challenging for them and even causes additional language delays. Autistic children are known to have greater linguistic and cognitive abilities, with regard to language propensity than their monolingual counterparts (Bialystok, 2001; Patterson, Marinova-Todd & Miranda, 2012; Wei, 2000, cited in Park, 2014).

In line with bilingualism in children with ASD, other researchers have shown that there are no additional impairments in language development compared with their monolingual peers. There are, instead, areas during which autistic children could also be better than monolinguals. A study conducted by Seung et al.'s (2006) of a Korean-English child with ASD revealed development in both Korean and English vocabulary, though his speech-language treatment was only in Korean (Park, 2014). For another evidence, Petersen in her study discovered that there is no difference in the English Communicative Development Inventory (CDI) scores of bilingual Chinese-English children with autism and monolingual English ones. She also figured out that the bilingual children participating in the survey owned larger vocabulary scores than the monolinguals. Therefore, her hypothesis was proved by the survey and concluded that bilingual Chinese-English children with autism aren't influenced by any negative effect of latest language development (Reppond, 2015).

With all of these studies, the results show that it is clear that children with ASD are indeed able to acquire a new language successfully if parents, psychologists and educators take the time to implement an appropriate plan for the child.

Part two: Strategies for Teaching English to Autistic Children

Learning is not an easy process because it requires the mastery of the four language skills which are listening, speaking, reading, and writing along with the fifth skill which is culture. All those skills are important for achieving the summit mastery of the English language.

Learning

Learning is the process of participating and controlling objects, experiences, and conversations for the purpose of building mental models of the world (Dewey, 1938; Piaget, 1964; Vygotsky, 1986). Learning ability is one of the most outstanding characteristics of the human kind. This process occurs continually during our lives. In this learning definition there are many experiences which vary from one person to another+. Because of these perceptions, a person's thoughts and feelings can change. So, learning may be defined as a change of behavior as a result of everyone's experience. This behavior may be physical, an attitude or intellectual. (Schunk, 1997).

According to Gross (2012) learning is the process of acquiring new understanding, knowledge, behaviors, skills, values, attitudes, and preferences.

Supporting Language Learning for Students with Disabilities

A learning disability is a condition that may cause an individual to have difficulty with listening, thinking, speaking, reading, writing, or spelling. It can also affect the memory, and behavior in addition to attention span problems that can be seen most often while learning. Learning disabilities affect about 5 to 10 percent of school-age children. Align with that, most common learning disabilities are in speaking and reading comprehension in addition to

communication. A huge number of disordered students face behavioral problems as a result of frustration as the USA Education Act (IDEA) (2004) defines the term learning disability by saying that:

“a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations” (as cited in Wright, 2005, p. 9)

The US Education clearly showed that learning disabilities refer to a variety of disorders that affect the acquisition, understanding, and the use of verbal and/or non-verbal information ; and as a result to impairments in one or more psychological processes connected to learning these disorders appear Educators such as Graham and Harris(2005); associations like the Learning Disabilities Association and psychotherapists such as Mishna (1998) believe that students with learning disabilities can be very successful and succeed in school when they are provided with the right supports and the right strategies that support their learning.

“Children with learning disabilities are not “dumb” or “lazy.” They usually have average or above-average intelligence. Their brains just process information differently.... With the right help, children with LD can and do learn successfully” (the National Dissemination Center for Children with Disabilities, 2004, p.2)

When it comes to teaching English as a foreign language to students with learning disabilities the researches indicates that these students do well with decoding, but have difficulties with language production; in other words, these students often possess a good collection of vocabulary and grammatical structures, but they cannot express themselves orally and in writing, because they lack strategies for planning, setting priorities, monitoring, predicting and self-assessment. In support of this type of intervention Fowler and Hunt (2004) assert that:

“Individuals with learning disabilities have skills that make it possible for them to learn how to use strategies and accommodations to help them pursue their goals” (p. 30).

Students with learning disabilities are not aware of how their minds work and fail to use strategies that represent processes underlying academic performance because their brain does not process information normally. It requires modeling effective cognitive processes through learning strategies instruction to help them change their learning processes and purposefully employ effective ones.

In order to help students with language learning disabilities, teachers must process strategies of learning depending on the learner’s language skills. The use of strategies for language learning is a fundamental requirement for successful learning; they contribute to the development of comprehension and production of the target language and improves the rate of learning, according to Chamot (1987) and O'Malley (1990), learning strategies includes all special thoughts or behaviors that individuals use to comprehend and learn to retain new information.

Learning strategies are techniques, approaches and actions that teachers take to facilitate the learning and recall of both linguistic and content area information (Chamot, 1987, p. 71). Chamot states that learning strategies instruction is an important factor for developing independent learning as it helps learners discover what particular strategy works for them in a particular situation and develops their control over their learning, the more students become aware of their learning strategies, the greater the control they develop over their learning.

Obstacles Facing Autistic Children in Algeria

Hadjira Hichouri (2019) states that autistic children suffer from many obstacles that inhibit their acceptance as citizens. The first obstacle is the lack of a national health policy, which can reduce the monthly medical expenses that parents of autistic patients must pay. The

second obstacle is the integration of autistic children into the educational system. Algeria does not have public schools specifically for autistics; they receive education or treatment with other people with intellectual disabilities in private schools or centers. Therefore, the third obstacle is the shortage of qualified personnel working in this field, the result of the country's unwillingness to invest in training and certification of qualified personnel to supply this shortage. Special needs students must have special treatment, special techniques and strategies to follow and teachers should be aware of those strategies and to implement them according to psychologists' guidelines.

The present study's objective is to identify those strategies and to what extent do they help children with ASD.

Strategies for teaching English Language to Autistic Children

United Nations Educational Scientific and Cultural Organization (UNESCO) suggest that all teachers should consider as their responsibility, the identification of every child's need, especially children with special needs, as well as autistic children. An English language teacher should be trained and the private school information system should be updated in relation with the development of educational strategies for children with ASD. The curriculum for autistic children should be structured, individually to meet their needs. These plans should include opportunities to generate learning skills in different environments. (Harris, Miske, & Attig, 2004).

The important thing to consider is that the teacher should be well prepared to deal with different characteristics of autistic students and to model exactly what is required during the lesson. Also, the teacher should be sympathetic and well trained before teaching an autistic child.

The Mostly Used Strategies for Teaching English to Autistic Children

Social Communication Skills Strategy

Lack of communication has always been considered a basic feature of autism. However, there are major and wide-ranging differences in the way people with autism communicate. Besides, supporting social interaction is an important piece of the student's educational plan. Autistic students often desire to interact with others, but do not have the skills to participate properly or may feel overwhelmed by the process. To illustrate, some students are painfully aware of their social shortcomings - even if they desperately want to connect with others, they will avoid interaction, others will engage in attention-seeking behavior to connect with others until they build the skill they need to interact.

Social communication also called pragmatics means the way students use language within a social situation. It requires the ability to share appropriately what you feel or want to say and also to understand and respond to what others are feeling or saying. In other words, the ability of children with ASD to communicate and use language depends on their intellectual and social development some children with autism may not be able to communicate using speech or language, and some may have very limited oral skills. Many people have trouble with the meaning and rhythm of words and sentences. They may also be unable to understand body language and the meaning of different vocal tones taking together these difficulties affect the ability of children with ASD to interact with others, especially people their age.

In other words, this strategy helps EFL autistic children to develop their language and to become socially involved.

Special Teaching Strategy

This method is used by the institutions and centers that provide special teaching, it

consists on developing the subject in small groups and less daily topic content, to avoid an excessive flow of information, this in turn allows students to repeat what they have learned before continuing to study a new subject. This technique is thought to be well suited because it provides more assistance in the form of links, appropriate repetition, and subject material taught in smaller proportions. It is considered then, the simplest for the learning of a foreign language, but it should be noted that it does not consider communication and social interaction (Willems, 2016).

In other words, this strategy takes time and it neglects the communication and social interaction aspect.

Applied Behavioral Analysis (ABA) Strategy

Applied Behavior Analysis (ABA) is a technique that is used in school, home, or clinics. The fields of behavior analysis have a strong relation with the study of language development.

ABA is almost always implemented one-on-one; that is one autistic child and one therapist. Therefore, different skills can be taught to the autistic child such as: imitation, receptive language, expressive language, and grammar (Smith, 2002). Imitation can occur when the therapist for example claps his/her hands and tells the child to do like him/her, the child will then have to follow.

Another skill that ABA works on is receptive language; for example, the therapist picks up a ball and says 'ball'. Along with receptive language there is expressive language that ABA tries to enhance; for example, when the therapist holds up an object, the child would respond with the correct object's name. Since most autistic children do not have the ability to talk, expressive language is an important lesson to try with them (Smith, 2002). For grammar, it could occur, for example, when the therapist corrects the personal pronouns for

the autistic child.

Learning is considered as a result of behavior, and these consequences determine the possibility of a behavior to be repeated again (Donaldson, 2014).

The most common techniques of ABA are:

Pivotal Response Training (PRT)

In ABA, PRT is another popular one-on-one floor teaching technique. It's a set of therapeutic approaches that are based on naturalistic principles. As a result, natural reinforcement is used. For example, if the therapist is teaching the word 'car' to the autistic child, then the therapist may play with a set of cars and gives the child a car to play with as a reward. This can motivate the autistic child to speak.

Verbal Behavior (VB)

The VB therapy teaches communication and language. It does not focus on words only (car, ball...) rather it teaches why we use words and how they are useful in communicating ideas.

Picture Exchange Communication System (PECS)

PECS strategy is a communication system for non-verbal autistic children. It allows them to communicate using pictures. However, this technique hurts the development of the autistic child's spoken language.

Based on the aforementioned definitions of ABA strategy and its techniques, we can say that it's the most effective technique in EFL teaching of autistic children because it has a range of techniques that focus on multiple aspects in order to achieve effective EFL learning.

TEACCH Strategy

TEACCH is short term for Treatment and Education for Autistic and related Communication Handicapped Children. It was established by Eric Shcopley in the early 1970s. It pioneered the formal teaching intervention, which is focused on an appreciation of

autistic learners' learning characteristics and the use of visual aids to foster independence.

Treatment and Education of Autistic and Related Communication

Handicapped Children (TEACHC)

Generally, it recommends four kinds of structure. The first is physical structure where using elements such as furniture arrangement or visual cues that show the autistic child which activity occurs in a particular area and where to stand or to sit and reducing all environmental sources of distraction. The second type of structure involves organizing visual schedules where activities are clearly shown in their sequential order through words or pictures. The third kind of structure is the organization of individual's tasks using visual means in order to show the individual what he/she is supposed to do, how long the activity will last, and how many repetitions he/she does, how he/she can see that he/she is making progress, how he/she can see that the activity is finished, and what he/she will do next. The fourth type of structure is linking individual tasks into a sequence of activities; it is called the work/ activity system in order to increase the amount of time that the individual spent in productive activities. Jordan (2002) describes the literature on TEACHC as providing 'very positive, but not remarkable, results'.

TEACCH is an evidence-based academic program that is based on the idea that autistic children are visual learners, so teachers must correspondingly adapt their teaching style.

Conclusion

In this theoretical chapter, we have given an overview of how autistic children learn English language which is divided into two parts. The first part provides a background about autism, the characteristics of autistic children, a cognitive profile, and language acquisition for autistic children. Then a connection between developing new language successfully and putting an appropriate plan was highlighted.

In the first part, the reader will acknowledge the Autism spectrum disorder and its characteristics because it is ambiguous to some and unknown to others in our country. The second part focuses on learning and teaching strategies of English language to autistic children which are commonly used in private centers and institutions. The review's purpose is to help the reader understand how autistic children learn English and what are the core elements to focus on before choosing a teaching strategy.

Chapter Three
Research Design and Methodology

Methodology and Research Design

Introduction

This research is about investigating the way that autistic children learn English and the effectiveness of teaching strategies. In the previous chapter we expounded a brief review of literature for the studied topic. This methodological chapter depicted a comprehensive image of the applied methodology in this research. It outlines where the study was conducted and provides information about the participants, the research design, and the instruments for gathering the data of this study to determine, and examine the credibility of the already stated hypothesis.

The Research Setting

On 30 May 2021 the study took place at Psylluim Center, Annaba, Algeria. The survey was conducted in an empty classroom in the center in order to guarantee a helpful atmosphere. Psylluim Center was not that crowded since there were a limited number of students, teachers, and psychologists. The place was so mild and has a pleasant ornament over the walls. In addition, there was a mellifluous music that makes the researcher feel comfortable.

The Participants

The participants in this research were carefully chosen among English language teachers and psychologists at the Psyllium, Annaba, Algeria. The sample entails three (3) teachers ranging in age from 30 to 40 years old, as well as two (2) psychologists. The sample was selected to suit the purpose of the research well. Since, the teachers of English and psychologists chosen had previously worked with autistic children and could thus answer the given questions.

The Research Instruments

During the process of conducting this study, a number of instruments were carefully chosen on purpose to obtain reliable, accurate results, and to prove the hypotheses, the following instruments that were chosen:

The Interview

“Interviews are primarily done in qualitative research and occur when researcher asks one or more participants general open – ended questions and record their answers. Often audiotapes are utilized to allow for more consistent transcription” (Creswell, 2012). In other words, the interview is a useful research tool in a form of speech exchange between the researcher and the participants.

In order to investigate teachers knowledge about strategies of teaching English language to autistic children, a structured interview was designed by the researcher to show the fact that the choice of the right strategies help enhancing autistic children learning process. The teachers were asked to answer a set of questions that allow new ideas to be brought up during the interview as a result of what the interviewee says.

The questionnaire

A research questionnaire is typically a variation of questions in order to obtain statistically useful or personal information from participants

In order to form more objective images on autistic children’s way of learning, a questionnaire is addressed to school psychologists to show the challenges that confront and hurdle autistic children in EFL classroom. Using some close-ended questions gave each participant the opportunity to share in their own words knowledge adopted throughout their experiences.

The Research Design

The aim of the study is to identify strategies to teach English language for ASD learners and assist their teachers to facilitate the work, the researcher choose the descriptive method for its lucidity to carry out the research study. To accomplish the main goal of the study, the researcher opted a mixed approach (qualitative and quantitative) this integration provides a better understanding of the research problem than either of each alone. The researcher followed the descriptive research design which includes a structured interview and a questionnaire.

Research Procedures

The research was conducted at in order to know how autistic children are taught to develop their English language.

First, in 12 April 2021 the researcher visited Psylluim Center with an authorization signed by the head of English department ‘Mrs. Fouad Djedid’ and the supervisor ‘Miss. Selma Nadji’ (Appendix A). The administration permitted the researcher to conduct the study in the centre.

In fact, the center was opened on 03 December 2019. It basically comprises of 70 autistic child from different genders, age and disabilities. Also, three English teachers, two psychologists, and other teachers and employees (pathologists, psychomotor therapists). The autistic children are divided into groups: two groups in the morning (9am-12pm) and the two other groups in the afternoon (1.30pm -4.30pm).

In, 13 April 2021 the researcher returned back to the center in order to make an interview with the English teachers to highlight the most used strategies and it lasted two hours from (9.30am-11.30am). After finishing that, the researcher contributed the questionnaire to both psychologists which was done in a short period of time (20 minutes for

each).

Center's workers were very kind, helpful, and welcoming.

Interview

Interviews can be defined as a qualitative research method which involves “conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program or situation.” (Boyce.C. &Neale.P.53, 2006). In the same line of thoughts, it is a conversation between the researcher and the informants with the purpose of collecting data about their opinions and attitudes.

There are three formats of interviews: structured, unstructured, and semi structured. The first type consists of a list of pre-defined questions that all interviewees answer in the same order. The second kind of interviews is a sort of discussion between the interviewer and the interviewee in which no question is prepared before. Whereas the third format is such a combination between the first and the second forms of interviews that the researcher prepares a series of questions to be answered by all the participants and some other not prepared questions may be added to clarify and explain certain issues.

In this research, the structured interview (Appendix B) was relied on. After the researcher introduce herself and her objective from that interview and before starting the researcher asked and got the permission to record the interview. Then, teachers answered the prepared questions in the same order whilst the researcher taking some notes.

The teachers’ interview included 20 open-ended questions divided into four sections: the first section is entitled ‘Personal Information questions’ aims to obtain information about the teachers such as qualification. The second one is entitled ‘Questions about autistic children in the classroom’ and it aims to highlight obstacles in their learning process of the English language learning. The third one is entitled ‘Psychological Training questions’ aims

to recognize the teacher's point of view according to their experiences about the importance of psychological training for teachers and autistic children also. The fourth sections is entitled 'Operational and Situational problems' and it about the choices and decisions made in order to help the autistic children improve their second language learning.

The interview questions can be described as follows:

Questions 1, 2, and 3 were asked know more about the teacher's age, qualification, and experience in dealing with autistic children.

Questions 4 and 5 were mainly asked to highlight the importance of learning the English language and how can their communicative difficulty affect that development.

Questions 6, 7, and 8 aimed at revealing the need of psychological training to teachers and psychological test to autistic learners.

Questions from 9 to 20 were mainly about the use of strategies and techniques to facilitate autistic children learning and to guarantee a know more about the choices teachers make for achieving a good teaching environment.

Questionnaire

A questionnaire is a set of written questions used to elicit both quantitative and qualitative data from the participants in a short period of time. From the answers of the selected sample, the researcher can be able to answer research questions and also confirm or reject the research hypotheses after the process of analyzing and interpreting the obtained results from the collected data. Questionnaires provide a relatively cheap, quick and efficient way of obtaining large amounts of data from.

During the present investigation a questionnaire (Appendix C) was chosen as a second research tool for the collection of data. It was given to two (2) psychologists of

children with ASD. The questionnaires begin with a brief introduction which shows the purpose of the study and kindly recommended psychologists to answer it. Therefore, it comprises of thirteen (13) questions that vary between Yes or No questions, multiple choices, and open/ close ended questions and each one of them had its aim under one major aim which was to prove the research hypotheses for the present study. The questionnaire was completely interpreted into Arabic taking into account that Algerian psychologists use the Arabic language, so to avoid any ambiguity and to facilitate the process a translation into Arabic was required. The questionnaire questions can be described as follows:

The questions are a mix of types to gain data from experts about teaching autistic children difficulties, conditions, instruments and experiences to confirm the perception of the research from expert's point of view.

Conclusion

To sum up, this chapter aimed at presenting and describing in details the used design of the presented work. As a result, the reader will fathom well how the research was conducted and carried out. The next chapter will provide the data analysis and findings for answering the research questions and the hypotheses.

Chapter four
Analysis of Data (Results)

Analysis of Data (Results)

Introduction

This chapter is devoted to present qualitative and quantitative analysis of findings from both teacher's interview and psychologist's questionnaire. The findings will be disclosed and analyzed, in order to investigate the teaching strategies of autistic children. In addition, to prove or disprove the aforementioned hypothesis, which claim that if teachers are aware about what kind of learning strategies that must be involved and what kind of activities to be implemented according to autistic children's needs and conditions. Therefore, their English language acquisition will be easier align with their numerous abilities of learning.

Part One

Teacher's Results

Teacher's Interview Analysis

Teacher's profile

The informants to whom the interview was conducted are English teachers (EFL) belonging to Psyllium Center at Annaba. They are three (3) females from different ages.

Section One: Personal information questions

Q1. How old are you?

Table 1

Teacher's Age

Teachers	Age
Teacher(1)	29
Teacher (2)	35
Teacher (3)	40

This question was mainly designed to ask for ages of each teacher in order to examine who has more experience and knowledge about the learning strategies of an autistic child. All the teachers responded kindly to this question. The participants are from different ages (29/35/40).

Q2. What is it your qualification?

This question is meant to give the opportunity to teachers to speak about their qualifications to teach, skills, qualities and experiences. All of the three teachers replied that they have a Master's degree in 'Didactics of English' and that they have extra diploma in Special Education and one of them added that she gained knowledge through teaching autistic children. Thus means that training is crucial in teaching children with disabilities.

Q3. How long have you been teaching English to autistic children?

This question is designed to know the period of teaching and dealing with autistic children for each teacher in order to see if experience have role in teaching. The period of teaching autistic children differs from teacher to another. The first teacher said that she had been teaching English for one (1) year, the second teacher answered for almost two (2) years and the third teacher answered for almost ten (10) years since she was working with another psychological center in Telemcen for around eight (8) years.

Section Two: Questions about autistic children in the classroom

Q4. What is the importance of English language learning to autistic children?

This question investigates whether the teachers support English language teaching to autistic children or not and to highlight its importance. All participants responded that bilingualism does not affect negatively the language development, and they do not

experience additional delays in their language development. One of the participants highlighted that learning English help autistic children feel at ease and to have better control of the language better than the mother tongue language. In addition, the final participant answered that learning English reinforce autistic children brain flexibility which can be seen in shifting from one task to another and even increase their focus on more than one task. Which leads to the assumption of ire (2015) said that learning a foreign language reinforces their brain flexibility and elevate the cognitive skills.

Q5. How does the difficulty in communicating with an autistic child affect their learning process?

This question was mainly designed to understand how communication disability affects the learning process. The first participants stated that a lack of communication skills obstructs children from expressing their needs and wants. When children can do this, it helps them with behavior, learning and socializing. The other participants stated that some autistic children have very good communication skills, whereas others find it harder to relate to and communicate with other people. Thus, some autistic children, find it difficult to understand or use spoken language, or have no language at all which makes their learning process difficult somehow. Therefore, this means that when an autistic child is able to communicate and express his thoughts and needs, the teacher will be able to help him/ her.

Section Three: Psychological Training questions

Q6. Do you have regular autism training? If your response is positive, clarify the regularity of those training.

This question aims to show if teachers of autistic children have regular autism training or not. The responses of all the participants were that they trained via online courses

and programs once a week for the whole year to always stay online with new updates. All the answers indicate that there is no specific training available in our country. This is why teachers go for online training. Their responses paint a clear picture of an unaware society that doesn't give importance to autistic children.

Q7. Are teachers trained to deal with extreme situations with autistic children? Explain how

This question was designed to capture the action that the teachers do when facing extreme situations in dealing with autistic children. The three participants highlighted that they are not trained to deal with such situations where they have been in any situation where special actions have to be taken. This indicates that all the teachers are not well trained.

Q8. Is it recommended that each child goes through a psychological test before entering school, do you apply it?

This question aims to find out if autistic children should pass a psychological test and whether it is applied in Psyllium Center. The participant answered that it is significant and beneficial for the child to pass a psychological test in order to diagnose the difficulties and needs of each child. In addition, they answered that they apply this at Psyllium Center. This means that teachers are kindly aware about the psychological side in learning.

Section Four: Operational and Situational questions

Q9. How could you help the autistic child to fit in socially with his classmates?

This question's purpose was to highlight some techniques that teachers use whilst trying to make an autistic child more socially involved with his classmates. The first participant explained that creating a good environment helps the child make relationships and she also highlighted that she uses the technique of bonding over common interests because

children who have something in common, such as a love of art, obsession with bugs, or passion for sports, will find it easier to relate to them. The second respondent stated that she does so by teaching body language and facial expressions by creating picture cards that depict a variety of emotions in faces and body language, and then assisting the child in understanding what different emotions might look like. Studying these emotions may help children pick up on non-verbal communication and recognize when their peers are getting mad, frustrated, happy or sad. The third participant responded that she uses positive reinforcement and explained that encouraging the child to build his social skills through recognition and praise will not only allow him/her to build social skills, but it will also build self-esteem. A comparison between the results reveals that each teacher uses various techniques to help the autistic child get involved socially with his classmates and that the choice is up to the ability of the child or his needs.

Q10. On what basis you choose the course material and content?

This question was designed to fathom the basic principles that teachers take into consideration while selection the course material and content. The three participants answered that the choice is made up according the autistic child learning needs, abilities and interests. Which leads to the assumption that teacher should highlight the exact profile within autistic children in order to choose the correct material and content.

Q11. What kind of activities do you usually implement in order to have satisfactory level of learning to autistic child?

This question was mainly about different activities used in order to attain a good level for autistic children. The first participant answered that she usually uses pictograms and timers. The second participant responded that she used pictures, toys and coloring activities.

The third participant answered that she usually uses a variety of activities in order to fulfill her goal. Those activities are: picture naming, Sensory Bag Games (this game gives students the opportunity to touch and feel different textures while working on language skills), drawing activities, visual aids and task analysis (breaking one task into small sub skills). Using such activities may work better for some children than others.

Q12. Which strategy do you use most frequently in your classroom?

This question was designed to highlight the most used strategies in teaching EFL to autistic children. The three participants answered that there are two famous teaching strategies, which are ABA and TEACCH. The first participant answered that she does not work on them because they are based on pictures and she has her own strategy (without a name) where one year of behavioral correction and one year of language learning are required. She explained that the child cannot access expressive language through the continuous use of pictures, and even if they do, it takes a long time. The other participants responded that they used both ABA and TEACCH, as well as the PECS strategy. According to the findings, ABA and TEACCH are the most commonly used techniques for teaching English, and this was recently confirmed by Fisher (2013), who stated that ABA can help boost the child's intellectual aptitude. Through this approach, children are able to develop social and emotional skills that match their peers. In addition to Panerai (1998), he believes the TEACCH method is a structured form of teaching that focuses on the child's development needs, interests, and his/her skills to develop the child's autonomy.

Q13. What does co-teaching mean to you?

This question was designed to capture the teacher's understanding of the concept of "co-teaching". The first participants answered that co-teaching is the cooperative work of two

teachers in order to create a successful lesson. Furthermore, the other participants explained that co-teaching is a method that involves two teachers working together with groups of students, sharing the planning, organization, delivery, and assessment of instruction, as well as the physical space, and it is used to create a more inclusive classroom. The findings show that all teachers have sufficient knowledge of co-teaching and may have used it previously.

Q14. Creating a perfect atmosphere enhances the learning process and the communication between students and teachers. To what extent do you agree? And how do you create a good atmosphere?

This question investigates the fact that a good environment help to enhance the learning process. All the participants answered that they strongly agree that creating a good atmosphere enhances the learning process and the communication between student and teacher. The first participant answered that a helpful atmosphere is welcoming, supportive and attractive. The second participant answered that a perfect atmosphere starts from the appropriate classroom setting and the number of students. The third participants answered to achieve that the teacher should deliver an effective praising and positive feedback in order to motivate the student. She added that stickers, toy prizes, tickets, tokens and other reward systems are great ways to recognize students and reinforce positive behavior and achievement in the classroom in order to feel good and keep producing positive actions. Therefore, a positive correlation was found between the development of learning processe and a helpful atmosphere by motivating the child to engage in learning and by attracting their attention.

Q15. How often you use differentiated instruction(differentiated instruction **is** a mode of teaching that accounts for students' individual needs and learning styles before designing a

lesson plan) , peer-mediated instructions and interventions(social learning through peer interaction, modeling, and reinforcement) strategies?

This question is primarily intended to reveal current strategies. All the participants answered that they always use peer-mediated and intervention strategies in their teaching process. On the other hand, the three participants highlighted that they frequently use differentiated instruction strategies because students learn in different ways. The agreement of all participants on the use of these strategies is a result of their frequent use, effectiveness, and progress in the cognitive skills of autistic children.

Q16. Which therapeutic interventions are children receiving?

This question was asked to recognize the currently used therapeutic interventions. The first participants answered that the children benefited from Verbal Behavior Therapy (VBT) and the other participants answered that children are receiving Interpersonal therapy (IPT).

Q17. What behavioral supports are utilized?

The main aim of this question is to highlight the behavior supports that teachers uses to manage students behavior. The first participant replied that she yield rewards for appraising a positive behavior. The second participant replied that sets students near to peers who model appropriate behavior and sometimes she uses punishment. The third participant responded that she uses pre-correcting and promoting and she explained that both pre-corrections and prompts describe what's anticipated of students in a way that is obvious and easily understood. A strong evidence was found between behavioral support and learning because autistic children tend to repeat and imitate things they hear or they see thus repetition attracts their attention as confirmed in the study of Volkmar and Wiesner

(2009).

Q18. Do you support children Individualized Educational Program (IEP) (written education program or plan designed to meet a child's learning needs)? Explain.

The essence of this question was to determine whether teachers support or collaborate with Individualized Educational Programs (IEPs), which means that each (IEP) must be designed for one student and must be a truly individualized document. The first informant declared that she didn't have enough information about (IEP), whilst the second informant answered that she didn't use it in the Psyllium Center and explained that it was due to the lack of awareness and knowledge in our country. The third informant stated that she does not support (IEP) because there are not enough tools, expert teams, and parents with extensive knowledge, because parents play an important role in developing the plan, but Algerian parents are still unsure of how to deal with their children. The lack of tools and knowledge for both teachers and parents is an important issue that has emerged as a result of these findings.

Q19. As a special education teacher, why do you feel that smaller classes give the student better chance of achieving their academic goals?

The main purpose behind designing this question is to check teachers' experience of working in small classes. The first participant answered that smaller classrooms give each student more one-on-one time with their teachers and they can focus better. In addition, the rest of the participants answered that special educational students have challenging needs, and it is important to address their individual requirements and smaller classes permitted that to happen. They also say that smaller classrooms give children a better experience and help them achieve their goals more easily. These findings suggest teaching a small number of students in each class in order to focus on the needs of each child.

Q20. Do you implement any specific strategies to teach English to autistic children? Specify.

This question aim to identify the specific strategies of each teacher in order to help autistic children learn a second language. The first informant answered that she just uses a lot of realia with the student: pictures, colors, textures and recording. The rest of the informant said that they just work on the abilities of each student and trying to be supportive and create a helpful atmosphere and make the autistic child socially involved in order to better chance of learning.

Part Two

Psychologist's Results

Psychologist's Questionnaire Analysis

Psychologist's profile

The participants to whom the questionnaire was conducted are psychologists belonging to Psyllium Center at Annaba. They are two (2) females from different ages.

Q1. How long have you been dealing with Autistic children?

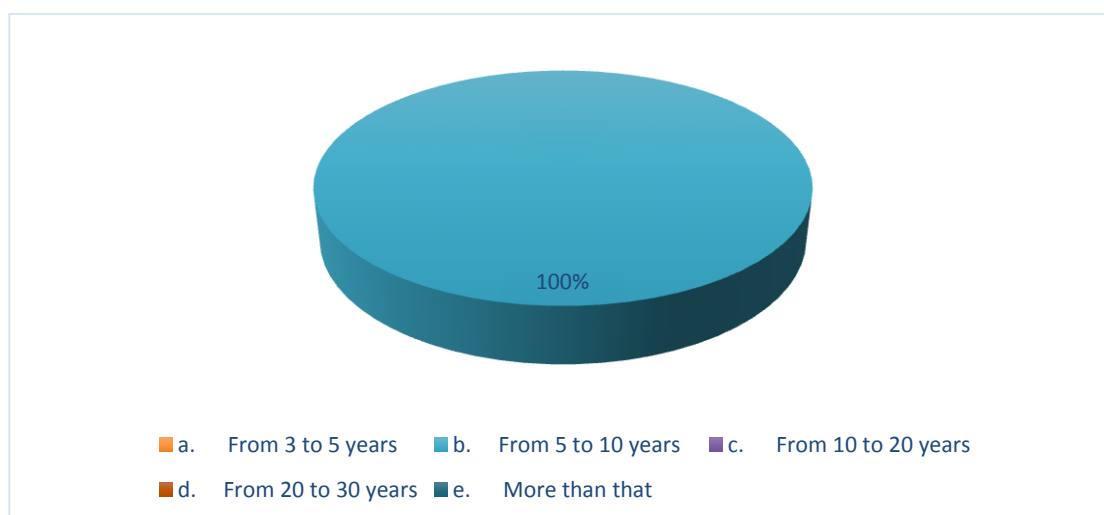


Figure 1. The duration of dealing with autistic children

As shown in the figure above, when psychologists were asked how long they had

been working with autistic children, 100% (2) of the participants in the study said that they had been working with autistic children for 5 to 10 years.

Q2. Do you think that learning a foreign language and having a bilingual mind will help autistic learners to improve their communicative skills?

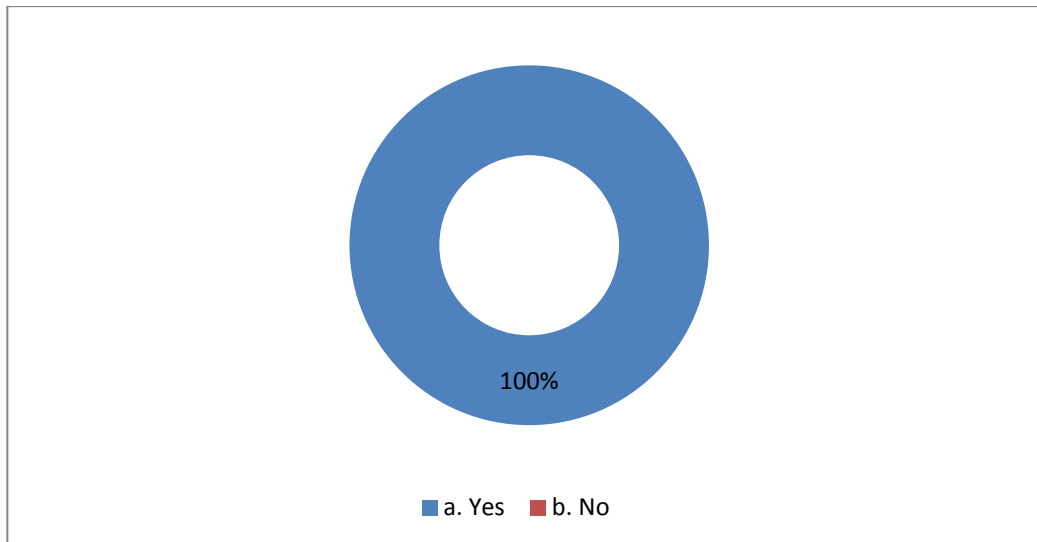


Figure 2. Teacher's perception toward learning second language and developing communicative skills

This question aims to show the relation between bilingualism and the development of communicative skills. As appeared in the figure, all the participants of the study 100% agreed on the effectiveness of learning a foreign to improve communicative skills. Furthermore, the participants justified their responses by saying that bilingual learners show a lot of achievement on cognitive workout, and they more organized on the speech process. This choice is confirmed due to the fact that bilingualism may not only be harmless for cognitive processes in autism, but has even been suggested to have a positive influence, especially regarding social and communication skills (Iarocci et al., 2017).

Q3. In order to help autistic children succeed academically, socially, and emotionally. Do you work only with:

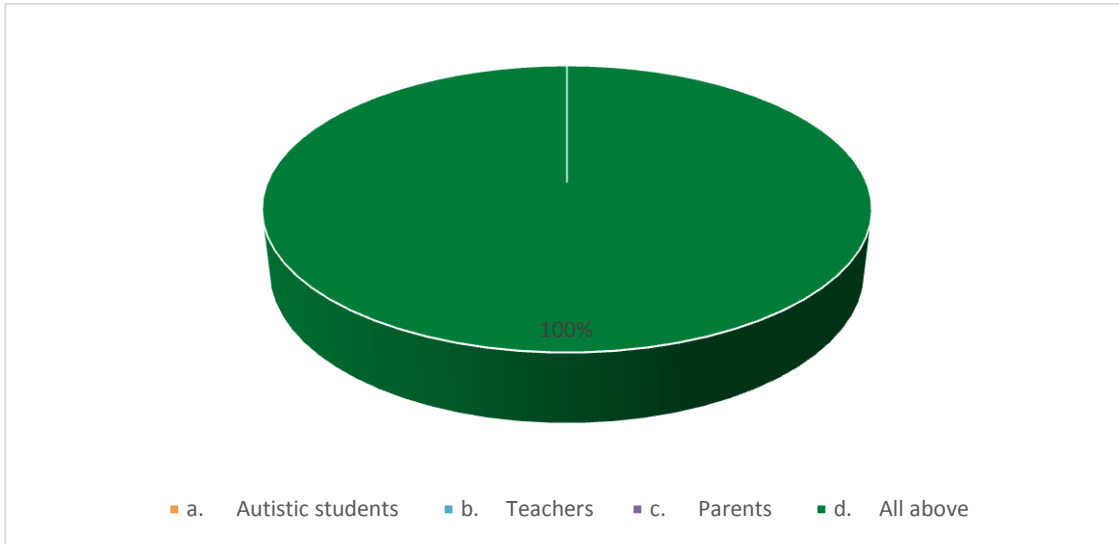


Figure 3. Psychologists work choice

This question aims to identify with whom psychologists work in order to help autistic children to become successful members of society. As presented in the figure above, both participants of the study 100% chosen answer d, which means that they work with autistic students, teachers, and parents. Which leads to the fact that collaboration between psychologists, Teachers, caregivers and autistic students is vital in diagnosing and highlighting the needs as mentioned before in chapter two.

Q4. What instruments do you use in order to diagnose the exact degree and characteristics in each child?

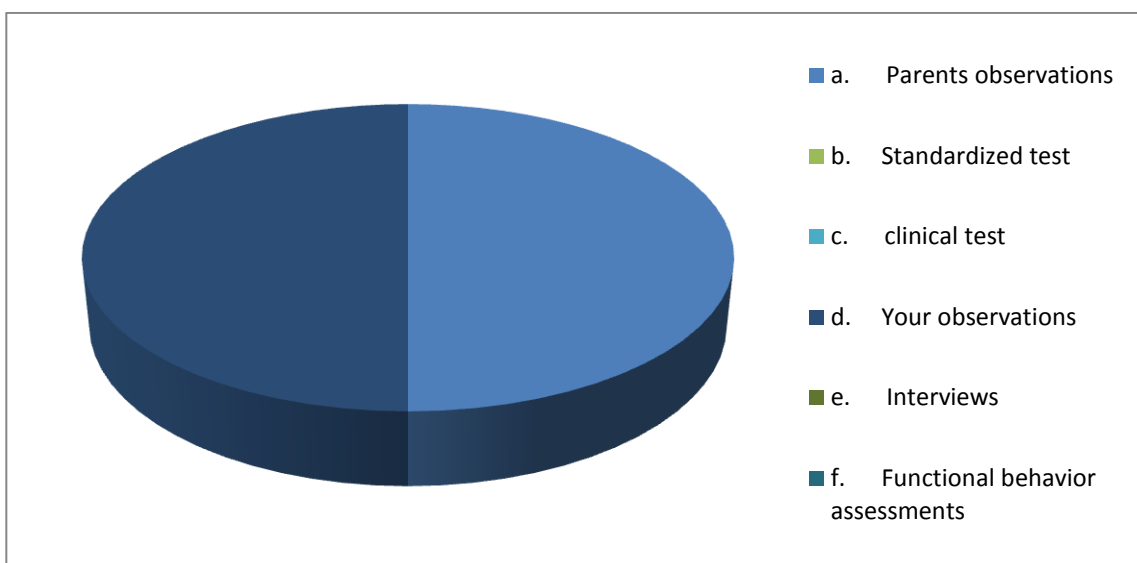


Figure 4. The tools used in diagnosing of the characteristics

This question aims to identify the tools that psychologists rely on, so they can exactly diagnose the issue. As appears in the pie chart, 50% of the study participants (1) responded that they rely on their parents' observation, whilst the other 50% answered that they rely on their own observation. These findings indicate that parents play a major role in the development of their children.

Q5. From the following choices, choose the problem you confront the most whilst dealing with autistic children.

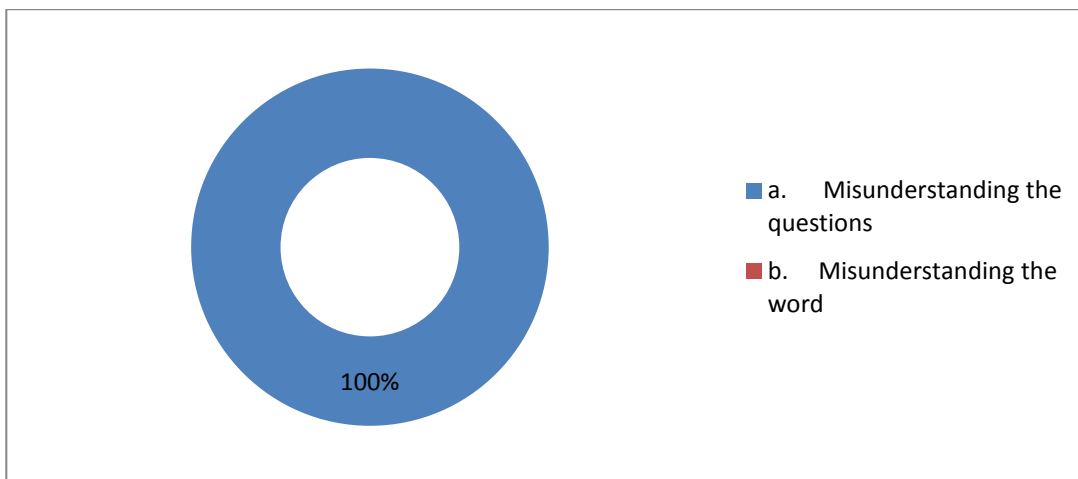


Figure 5. The problem most confront while dealing with autistic child children

This question was mainly designed to highlight the common obstacle problem that is faced the most while dealing with autistic children. All the informants 100% answered that they receive more the misunderstanding of the questions look at figure 5. Comprehension is considered to be a challenging task for these learners because they think far too quickly and jump from a topic to another unconsciously.

Q6. Does the child have?

Table 2

Psychologists and learning disabilities

Options	Participant 1	Participant 2
Verbal learning disability	01	01
Non-verbal learning disability	01	01

This question was designed to show the major category of autism that exists in children with ASD. From the table above, we can see that both psychologists in the study have chosen the two answers, which are verbal learning disability and nonverbal learning disability, and that means that they have dealt with both cases during their careers. As a result, children can be verbal or nonverbal, leading to the conclusion that each child is unique.

Q7. Autistic learners can memorize things easily

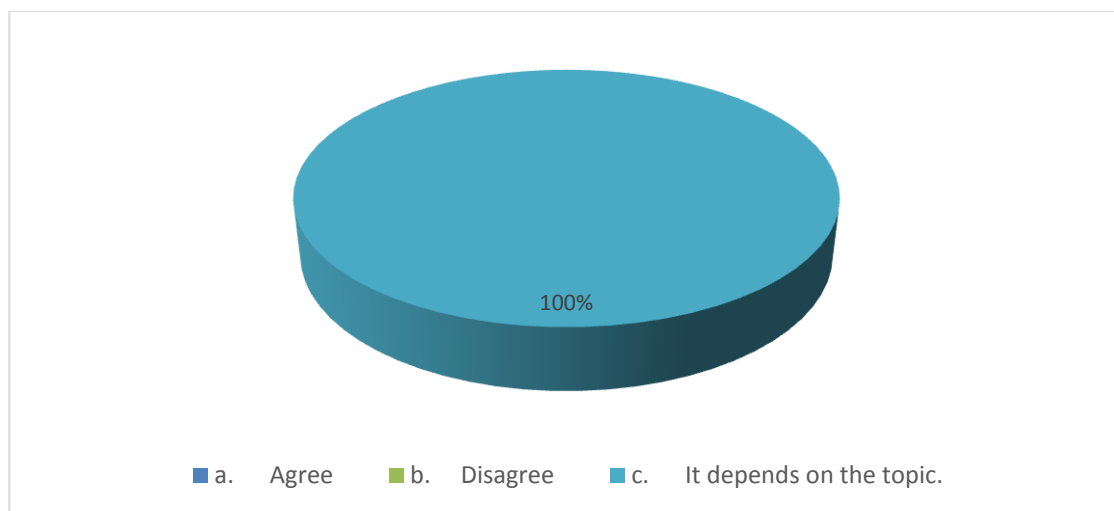


Figure 6. Psychologist’s opinion towards autistic children memorization

As presented in the pie chart, this question is designed to obtain data about psychologists' opinions about autistic children's capacities for memorizing the informants and, according to answers, the participants 100% went for the memorization of autistic

children depends on the topic discussed during the class. Furthermore, one participant demonstrated that when a child is interested in a topic, he focuses and participates more. The results obtained are confirmed due to the fact that ASD learners do not share common interests as their normal peers do. Each individual shows interest in different topics or activities depending on the talent he has; some prefer to learn through music, technology tools, others through drawings... etc

Q8. Repetition can show improvement on the language performance of autistic learners.

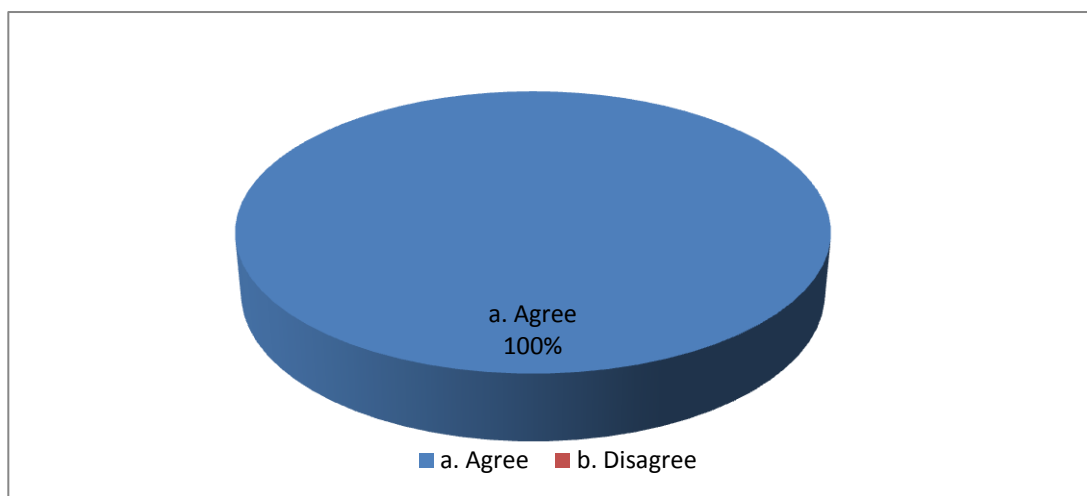


Figure 7. Role of repetition in language performance

The question's aim is to indicate the role of repetition. The findings of this question show that all the informants 100% agreed on the role of repetition in improving language performance in autistic children. Their explanation was that repetition of activities or words leads to development because autistic children tend to repeat things they hear or see unconsciously. Thus, repetition attracts their attention. The results indicate that ASD learners do not share common interests as their normal peers do. Each individual shows interest in different topics or activities depending on the talent he has; some prefer to learn through music, technology, tools etc....

Q9. During a lecture, autistic learners do not show common interests as theirs normal peers. Choose from the following, the technique that will solve their lack of motivation.



Figure 8. Techniques in solving lack of motivation within autistic children

According to the graph, the findings of this question show that 50% from the informants chose giving reward to autistic learners after any good behavior to fulfill their interests. In addition, the other 50% indicated that they prefer to rely on the use of pictograms during a lecture to catch their attention. These results assert their choice by the nature of this spectrum disorder; the autistic learners experience sensory sensitivity; by preferring to learn in an overwhelming environment they get motivation for a better performance because these rewards will make them feel as special learners in front of their peers. The results were quite similar for the use of pictograms during a lecture because pictures fulfill the interests of these learners since these pictures are enough to reach the meaning and don't require the use of language.

Q10. As a psychologist, do you think a good EFL teacher should know about autistic learners?

This question was designed primarily to elicit a psychologist's opinion on the EFL teacher's knowledge of autistic children. This is an open question, so that psychologists can express their thoughts clearly. One participant answered that a good EFL teacher should

know all the symptoms in order to clearly highlight the difficulties faced and to focus and work on them, whilst the other participant answered that he/she should know how to create a helpful environment according to the autistic children's needs, so they can be more comfortable with learning. Autistic children need more attention and they are different from their normal peers. In conclusion, autistic children often struggle with social interactions and are uncomfortable around others. Their discomfort with educators can result in rude social manners, especially when it comes to working in groups. As a result, teachers must understand how to highlight their students' needs and interests while also treating them well.

Q11. Autistic children often have unusual responses to sensory experiences and inputs.

Illustrate

This open question was mainly designed to understand autistic children's sensory issues. Participants are given the chance to explain things according to their knowledge and work experience. Both participants explained that autistic children can be oversensitive to sensory input such as lights, colors, voices, and so on, and that they may engage in repetitive behaviors to block out unwanted sensory input.

Some examples of such repetitive behaviors are: flapping hands, flicking fingers in front of their eyes, pacing up and down the room, rocking in a chair, tapping a pencil on the desk, focusing intently on a preferred object, e.g. spinning a coin, a light switch. Alternatively, an undersensitive student may be unresponsive to sensory input and receive insufficient sensory input, resulting in the brain not being alert enough for interaction, learning, and engagement. This can result in observable behaviors such as low registration, delayed or no response to questions and instructions, becoming more alert and engaged in more active tasks and multisensory activities, e.g. playground, art, music, difficulty completing work, standing

or moving around the classroom rather than sitting, swinging in fast-moving noise in quiet environment.

Q12. Each person with ASD is different and has a range of strengths and challenges.

Illustrate

This is an open question designed to collect data about the wide range of strengths and challenges of individuals with ASD. The first participant highlighted that the ways in which people with autism learn, think and problem-solve can range from highly skilled to severely challenged. Some people with ASD may require significant support in their daily lives, while others may need less support. The second participant replied that some people with autism may display a range of strengths. For example: memorizing and learning information quickly, thinking and learning in a visual way, having an excellent sense of direction, strong adherence to rules, being able to concentrate for long periods of time when motivated. Furthermore, some people face difficulties, such as difficulty focusing on something other than their interests, following unwritten social rules, which can be learned through instructions, and having difficulty expressing feelings in a way that others would understand or expect. Finally, she concluded that each person with ASD is unique. The results confirmed that each autistic child has a different set of characteristics.

Q13. Parents contribute to the learning of their children. If yes, give examples of real cases you worked with in which parents helped or hindered their children's learning.

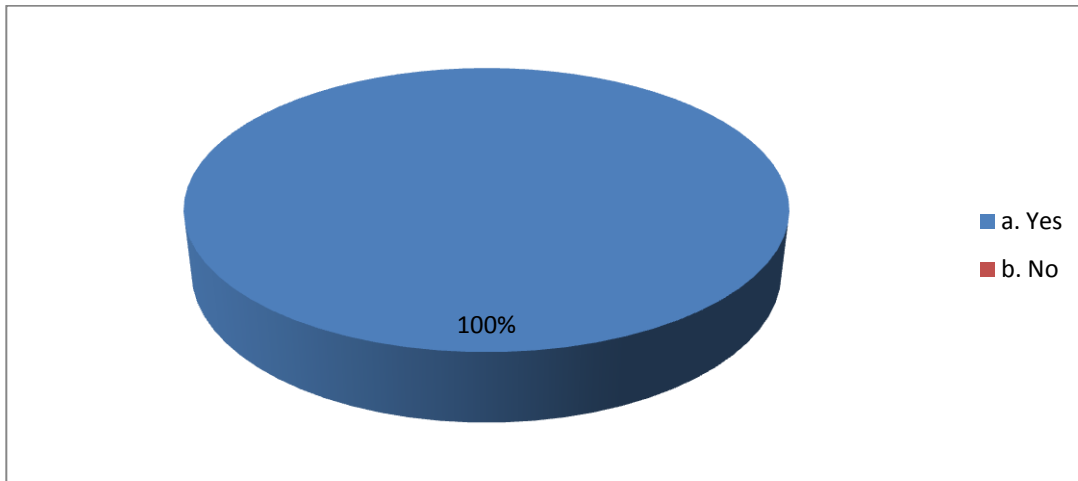


Figure 9. Psychologist's opinions about parent's role in enhancing the learning of their children

This question was mainly designed to foster parents' role in enhancing their children's learning from psychological experiences. Both participants answered yes (100%) as in the pie chart. The first participants' illustration was that they had worked with some parents and they were involved as role models for their children. Parents were told to have a good attitude toward education and speaking a second language in front of the child. As a result, he/she follows in their footsteps and is inspired, empowering him/her to embark on his/her own learning journey in an efficient and effective manner. The second respondent stated that she worked with parents who were extremely helpful in finding a satisfactory diagnosis for their child, and that they then tried a few interventions at home, such as picture exchange communication, before delivering a behavioral program (ABA) and seeing some improvements. The child was able to do a variety of activities.

Conclusion

To end up, this chapter was designed to present the findings of both the interview and questionnaires, which were analyzed qualitatively and quantitatively (mixed method approach). Furthermore, through the analysis of the gathered data, the researcher was able to prove the proposed hypotheses and to find an answer to the research questions. Therefore, the results assert that autistic children need specific and well-chosen strategies in order to enhance their English language learning.

Chapter Five

Discussion

Discussion

Introduction

This final chapter discusses the findings of the study in order to prove or disprove the aforementioned hypotheses, and to answer the research questions. Furthermore, this chapter discusses the findings of the study, as well as the limitations encountered by the researchers while conducting the research. In addition, the researchers suggested recommendations which are expected to be beneficial for the Ministry of Education, EFL teachers, parents of autistic children, and for further research studies.

Discussion of the research findings

According to the data collected from teacher's interview and psychologist's questionnaires. It's clearly highlighted that the right choice of the strategies in teaching English to autistic children is the key to enhance their learning ability. First of all, the questions asked about teachers and psychologists' background has significance to this study from age, qualification, to the period of dealing with autistic children in order to assure the level and the obtained experience.

Based on the results acquired from teachers' interview and psychologists' questionnaires, we can deduce that psychological training for teachers is a pre-requisite for an appropriate selection of strategies and to clearly highlight the difficulties faced for each child with ASD.

In addition, the result of this study improved that both teachers and psychologists have confirmed that each child with ASD is unique and has different characteristics, weaknesses and strengths that should be addressed through the right diagnosis which entails parents to take a part in it. Thus, the results also proved that all the participants of the research have a positive perspective towards it, and they support the teaching of English to

autistic child. In addition, it avails to improve their communicative skills, brain flexibility and to have better control of their L1.

Further, all the findings stressed that parents have a positive role in boosting their children to learn by the assistance of psychologists' right diagnosis and with the use of some techniques at home. Also, the results confirm that the selection of the course content and material is based on autistic children's needs and abilities.

Since all participant teachers are aware of teaching difficulties that faced them whilst dealing with autistic children, each one of them use a different strategy; the analysis revealed that ABA method is used by the majority (because even the teacher who said that she uses her own strategy, that strategy was only one technique from ABA techniques which is pictures communication PECS). Also, minor use of TEACCH and individualized plan strategies can answer our first research questions that the most effective strategies are ABA and TEACCH. However, creating a helpful atmosphere is a task for teachers that should be attained with the assistance of a psychologist, so the children will feel more stable and motivated to learn.

Despite 100% of the overall answers of teachers declared that teachers use a variety of activities, which help children to discover and learn in forthright way, a well designed atmosphere is really needed align with the need of the extrinsic motivation.

Consequently, these answers the research question by supporting the research hypotheses "If English teachers are aware about what kind of learning strategies that must be involved and what kind of activities to be implemented according to autistic children needs and conditions, their English language acquisition will be easier, thus will enhance their abilities of learning".

The aforementioned hypotheses are proved successfully to confirm that when teachers take into consideration the needs, difficulties, abilities and behaviors when

choosing the strategy and activities it promotes the development of their English language and enhances their abilities of learning by focusing exactly on improving those areas.

Implications of the Research

The results of this study are of importance for children with ASD because they provide a synopsis of children with ASD cognitive abilities and their weaknesses and strengths as well as it shows the effective strategies used by EFL teachers in order to overcome the difficulties that have been faced in this study. The results are a call for individuals with special needs centers and teachers and an invitation to open doors for further studies to give a serious attention to this segment and to teach English for children with ASD in the spotlight.

The Limitations of the Study

In every endeavor we find obstacles that hurdle the expected plans, this scientific research had certain limitations that confined the researcher to reach the preferred desires. The first limitation is the pandemic dreadful disease 'covid19' that played a great role to prevent the researcher from widening the knowledge concerning the topic. To illustrate, we expected to conduct much more interviews, but the pandemic restricted that.

In addition, the second limitation is concerning the interview and the questionnaire which was limited to small group of English teachers and psychologists that deal with children with ASD since the lack of centers that provide English language learning as a result we cannot be certain that the outcomes of the study are valid for generalization.

Moreover, the third limitation is that the researcher opted to do the experimental research, but the number of the teachers at the center and its tough regulations, the time is not enough, and the fearsome of the parents towards strangers who come to the center; therefore, the researcher chose to turn the way of research to descriptive one.

Although, the previously mentioned obstacles met the researcher during conducting this study, the researcher finished the work successfully and accessed the needed results for answering the previously mentioned hypotheses and research questions.

Recommendations

Improving the fourth skills of EFL students is considered to be a challenge for and this challenge is more difficult when the teacher deals with an autistic child. Based of the findings highlighted in this study, the following recommendations have been put by the researcher to show the importance of the right selection of the strategies in teaching English to autistic children. Those recommendations are put to raise awareness on some major elements and also to cover the children's needs.

Recommendations to the Ministry of Education

We would suggest to the Ministry of Education to:

1. Create some conferences and training programs prepared from specialists of child with ASD.
2. The opening of specialized centers to ensure children with ASD high quality learning as any person at the level of the states.
3. Create curriculum and programs in order to ensure the autistic children learning English language.
4. Give importance to children with ASD by providing teachers of English with psychologists training.
5. Make the teachers aware of the specific teaching strategies and techniques of teaching English to autistic children.
6. Implicate the strategies of teaching English to autistic children into the teachers' guide book and share it among educators.
7. The integration of autistic children in the Algerian educational system.

Recommendations to English Language Teachers

Teachers of English are recommended to:

1. English teachers are asked to get special training in the autism domain.
2. English teachers are recommended to collect information about their learners' personality because the autistic child needs more attention and each child has different personality and interests.
3. Cooperation in work, appropriate communicative activities, authentic tasks and shared knowledge make a rich production in the classroom environment and encourage students of different levels for progress.
4. Change the classroom decoration and provide it with the necessary materials to engage and motivate autistic children.
5. Teachers should diagnose students' difficulties in expressing themselves to find the effective ways to apply for overcoming these problems.
6. Adapt the program according to the newest studies about the spectrum.
7. It is preferable for teachers to reduce their talk time and mix the activities without forgetting breaks between activities to keep the learners attention. This will help learners to progress and teachers to observe.
8. Cater the pupils' needs throughout the use of realia amongst the classroom activities to provide authenticity.
9. Frequent meetings between the teacher and psychologist, and teachers with parents are needed to evaluate the child improvement.
10. Choose of the content according to autistic children interests.
11. The use of L1 to support English language teaching.
12. Support and implement co-teaching strategy and individualized educational programs.

Suggestion for autistic children caregivers

1. Autistic children should have psychological training in order to know how to deal with their child at home.
2. Learn some techniques to help the child improve his English language learning.
3. Assist psychologists by giving them observations about the child behavior in order to clearly diagnosis of the difficulties
4. Create a clear environment to make the child feel at ease
5. Read some books on autism and stay in touch with the latest updates.

Suggestion for further research studies

The researcher recommended the following suggestions:

1. An experimental study is suggested to provide more precise test of the hypotheses far from just predicting.
2. Obtain the data from larger sample and through the use of different tools in order to show how strategies are put into practice
3. Further studies are recommended to examine how English language participants in the development of four skills each one in isolation.
4. Other studies may incorporate observation as tool to highlight the strategies effectiveness among autistic children progress.
5. In addition, we recommend further researches to investigate the effect or the role of caregivers in developing English language learning on their children.

Delimitation of the Study

This research did not require any budget and the researcher was comfortable proceeding with the interview and the questionnaire, as well as in the absence of any physical exertion.

Conclusion

Teaching English to autistic children is a difficult task for teachers of Psyllium Center since the teachers are not having psychological training programs, and the English language is taught with specific strategies and techniques. The results of the study confirmed the choice of the appropriate strategies make language acquisition easier for autistic children.

This chapter presents the obtained findings from both the interview and the questionnaire which successfully confirmed our hypotheses and answered our research questions. Also, this chapter presents the limitations and recommendation for future practices.

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Appendices

Appendices

Appendix (A)



Appendix (B)

Teachers' Interview

This questionnaire is aimed at collecting data from English teachers regarding their teaching strategies of English as a foreign language to autistic children. The responses will help the researcher identify the most effective strategies according to teachers and to understand on what basis they choose it.

Please answer the following questions.

Section One: Personal information questions

1. How old are you?
2. What is your qualification?
3. How long have you been teaching English to autistic children?

Section Two: Questions about autistic children in the classroom

4. What is the importance of English language learning for autistic children?
5. How does the difficulty in communicating with an autistic child affect their learning process?

Section Three: Psychological Training questions

6. Do you have regular autism training? If your response is positive, clarify the regularity of those trainings.
7. Are teachers trained to deal with extreme situations with autistic children? Explain how
8. Is it recommended that each child goes through a psychological test before entering school, do you apply it?

Section Four: Operational and Situational questions

9. How could you help the autistic child to fit in socially with his classmates?
10. On what basis do you choose the course material and content?

11. What kind of activities do you usually implement in order to have a satisfactory level of learning to autistic children?
12. Which strategy do you use most frequently in your classroom?
13. What does co-teaching mean to you?
14. Creating a perfect atmosphere enhances the learning process and the communication between students and teachers. To what extent do you agree? And how do you create a good atmosphere?
15. How often you use differentiated instruction(differentiated instruction)is a mode of teaching that accounts for students' individual needs and learning styles before designing a lesson plan) , peer-mediated instructions and interventions(social learning through peer interaction, modeling, and reinforcement)strategies?
16. Which therapeutic interventions are children receiving?
17. What behavioral supports are utilized?
18. Do you support children's Individualized Educational Program (IEP) (written education *program or plan* designed to meet a child's learning needs)? Explain.
19. As a special education teacher, why do you feel that smaller classes give the students a better chance of achieving their academic goals?
20. Do you implement any specific strategies to teach English to autistic children? Specify.

Appendix (C)

Psychologists's questionnaire

This questionnaire is addressed to an experienced psychologist in the educational realm.

We would like to ask you a few questions about teaching English as a foreign language for autistic children. We are interested in your point of view as it is the source of inquiry. The responses will help the researcher form more objective picture of the autistic children

learning process and second language acquisition.

Thank you very much for your cooperation.

هذا الاستبيان موجه لأخصائي نفسي ذو خبرة في مجال التعليم. نود أن نسألك بعض الأسئلة حول تدريس اللغة الإنجليزية كلغة أجنبية للأطفال المصابين بالتوحد. نحن مهتمون في وجهة نظرك لأنها مصدر التحقيق. ستساعد الاجابات الباحث على تكوين صورة أكثر موضوعية لعملية تعلم الأطفال المصابين بالتوحد واكتساب اللغة الثانية. شكرا جزيلاً على تعاونكم.

1. How long have you been dealing with Autistic children?

- From 3 to 5 years
- From 5 to 10 years
- From 10 to 20 years
- From 20 to 30 years
- More than that

1. منذ متى وأنت تتعامل مع الأطفال المصابين بالتوحد؟

أ. من 3 إلى 5 سنوات

ب. من 5 إلى 10 سنوات

ج. من 10 إلى 20 سنة

د. من 20 إلى 30 سنة

هـ. أكثر من ذلك

2. Do you think that learning a foreign language and having a bilingual mind will help autistic learners to improve their communicative skills?

- Yes
- No
- Justify your answer above

.....

.....

2. هل تعتقد أن تعلم لغة أجنبية ووجود عقل ثنائي اللغة سيساعد المتعلمين المصابين بالتوحد على تحسين مهاراتهم

التواصلية؟

ا. نعم

ب. لا

ج. علل اجابتك السابقة

.....

.....

3. In order to help autistic children succeed academically, socially, and emotionally. Do you work only with:

- Autistic students
- Teachers
- Parents
- All above

3. من أجل مساعدة الأطفال المصابين بالتوحد على النجاح أكاديميا واجتماعيا وعاطفيا. هل تعمل فقط مع:

ا. الطلاب المصابون بالتوحد

ب. الاساتذة

ج. الاولياء

د. كل ما ذكر اعلاه

4. What instruments do you use in order to diagnose the exact degree and characteristics in each child?

- Parents observations
- Standardized test
- clinical test
- Your observations

- e. Interviews
- f. Functional behavior assessments

4. ما هي الأدوات التي تستخدمها للتشخيص الدقيق لدرجة وخصائص لكل طفل؟

ا. ملاحظات الاولياء

ب. اختبار موحد

ج. الاختبار السريري

د. ملاحظتك

هـ. المقابلات

و. تقييمات السلوك الوظيفي

5. From the following choices, choose the problem you confront the most whilst dealing with autistic children.

- a. Misunderstanding the questions
- b. Misunderstanding the word

5. من الخيارات التالية، اختر المشكلة التي تواجهها أكثر أثناء التعامل مع الأطفال المصابين بالتوحد.

ا. سوء فهم الأسئلة

ب. سوء فهم الكلمة

6. Does the child have?

- a. Verbal learning disability
- b. Non-verbal learning disability

6. هل الطفل لديه؟

ا. إعاقة التعلم اللفظي

ب. إعاقة التعلم غير اللفظي

7. Autistic learners can memorize things easily.

- a. Agree
- b. Disagree

c. It depends on the topic.

.....

7. يمكن لطلبة المصابين بالتوحد حفظ الأشياء بسهولة.

ا. اوافق

ب. لا اوافق

ج. يعتمد على الموضوع

.....

8. Repetition can show improvement on the language performance of autistic learners.

a. Agree

b. Disagree

Justify:.....

.....

8. التكرار يمكن ان يظهر تحسن في الاداء اللغوي عند طلبة التوحد .

ا. اوافق

ب. لا اوافق

التعليل.....

.....

9. During a lecture, autistic learners do not show common interests as theirs normal peers.

Choose from the following, the technique that will solve their lack of motivation.

a. Giving rewards after any good behaviour.

b. Reinforce the use of pictograms.

c. Telling jokes and play games.

9. خلال الدرس، لا يظهر المتعلمون المصابون بالتوحد اهتمامات مشتركة كأقرانهم العاديين. اختر من بين ما يلي التقنية

التي من شأنها أن تحل مشكلة التحفيز

ا. عطاء المكافآت بعد أي سلوك جيد

ب. تعزيز استخدام الصور التوضيحية

ج. قول النكت و لعب العاب

10. As a psychologist, do you think a good EFL teacher should know about autistic learners?

.....

10. كأخصائي نفسي هل تعتقد ان الاساذ الجيد للغة الانجليزية كلغة اجنبية يجب ان تكون له معرفة حول تلاميذ التوحد ؟

.....

11. Autistic children often have unusual responses to sensory experiences and inputs.

Illustrate

.....

11. الأطفال المصابين بالتوحد غالبا ما يكون لديهم استجابات غير عادية للتجارب والمدخلات الحسية. وضح

.....

12. Each person with ASD is different and has a range of strengths and challenges. Illustrate

.....

12. كل شخص مصاب بالتوحد مختلف ولديه مجموعة من نقاط القوة والتحديات. وضح

.....

13. Parents contribute to the learning of their children. If yes, give examples of real cases you

worked with in which parents helped or hindered their children's learning.

a. Yes

b. No

.....

.....

13. ساهم الآباء في تعلم أطفالهم. إذا كان الجواب نعم، فأعط أمثلة عن الحالات الحقيقية التي عملت معها والتي ساعد فيها

الآباء أو أعاقوا تعلم أطفالهم. .

ا. نعم

ب. لا

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